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ORIGINAL ARTICLES.

A PLEA FOR EFFICIENT LEGISLATION REGULATING MEDICAL PRACTICE.*

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During the last decade no question in medical sociology has attracted greater attention than medical education. The requirements of our colleges not being upon a par with those of other countries, nor with other departments of education in this country, it was but natural that the profession as a whole, the medical press, and organized bodies of medical men, should join in a demand for needed reforms. During the formative period of our history it is but natural that abuses should have arisen in methods of education and obtain a firm rooting. A spirit of criticism exists that will not subside pending the definite determination of a question of such vital interest to the profession of the country.

As a nation during the first century of our history, we have established a system of common school education that challenges the admiration of the civilized world. It is a subject of regret, however, that in certain advanced lines of education our methods have proven most defective. This is true of medical education; a system having secured foothold with us that is indeed anomalous.

Having no support other than the fees of students; without university or college connection; without support from the state, generally accorded other systems of education; without restraining legislative enactments; without laws regulating the granting of charters for purposes of medical instruction; it is indeed little wonder that at the end of the first century of our history as a nation, chaos should reign supreme.

The agitation of the question of medical education is bearing fruit however, in that a majority of the schools situated in the northern states demand at the present time evidence of preliminary fitness before matriculation, and that in a period of five years all colleges known to the writer have extended the period of time of study; with a change of the minimum length of term from five to six months. After the present year every medical school of recognized standing will require attendance upon four courses of lectures in different years, each course, of six months' duration before conferring the degree of M.D. The reforms thus far accomplished have only been secured in the face of determined opposition at the hands of the representatives of the low-grade institutions. Future opposition will result in disaster to the participants. Professional sentiment

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is decidedly with those schools now operating under the advanced curricula. This is particularly manifested by the increased number of matriculates in the last three years at schools operating under the four years' course. The fiscal matriculation at the University of Pennsylvania and Columbia is, approximately, eight hundred, Harvard five hundred, and others in proportion; while that of the recognized low-grade institutions has sensibly fallen off.

Notwithstanding the trend of public opinion, we are firmly of the conviction that our only safety consists in the establishment of efficient legislative acts in substantially every state. The high-grade schools are undergoing a period of evolution and are determined to inaugurate greater system in methods of work; with low-grade schools little evidence is at our command pointing to improvement.

The elevation of the standard of requirements in the latter class of schools have seemingly been entirely in response to the requirements of the respective state boards of medical examiners.

The indifference of the profession to methods of medical education has been far reaching in its pernicious influences. Blinded by our own shortcomings we did not awaken to a realization of our environment until our interests were greatly jeopardized. We found ourselves drifting, in the estimation of both the public and profession, towards a condition of professional inefficiency, not unlike that of French medicine in the seventeenth century, so graphically described by Moliere. One of the greatest evils of our system was the flooding of our ranks with a horde of poorly educated practitioners far in excess of our legitimate demands. The latter assertion is convincingly illustrated by the statistics gleaned from the recent excellent paper of Professor Pepper on Medical Education, affording comparative statistics relating to the proportion of practitioners to the population in different countries of the globe.

TABLE INDICATING THE PROPORTION OF PHYSICIANS TO THE POPULATION.

Austro-Hungarian Empire	1	to	5,887
Belgium	1	to	2,084
France	1	to	2,666
German Empire	1	to	3,038
Italy	1	to	3,536
Netherlands	1	to	2,484
Norway	1	to	3,961
Russia	1	to	8,551
Spain	1	to	5,375
United States	1	to	300

The number of medical colleges indicates a similar disproportion.

NUMBER OF MEDICAL COLLEGES TO THE POPULATION.

Austro-Hungarian Empire	1	to	5,753,917
Belgium	1	to	1,534,111
Brazil	1	to	7,001,167
Canada	1	to	3,336,877
Chili	1	to	2,887,552
France	1	to	5,477,591
German Empire	1	to	2,471,923
Great Britain	1	to	2,358,767
Italy	1	to	1,445,109
Netherlands	1	to	660,249
Norway	1	to	1,988,771
Sweden	1	to	1,600,917
Russia	1	to	14,403,317
Spain	1	to	1,950,027
United States	1	to	440,151

It will be observed from the above that the proportion of practitioners and the number of schools are greatly in excess of other countries. Medical colleges in foreign countries are likewise independent financially, being, as a rule, directly supported by the state or possessing a direct university connection.

An investigation of this subject reveals beyond the possibility of successful controversion that the most efficient profession is found in those countries protected by efficient legislation; while a correspondingly low standard of professional fitness exists in countries not similarly protected.

At one time considerable opposition existed to the regulation of medical practice by legislative enactments. With the defeat of attempts to destroy the effects of this form of legislation by litigation, and the moral support afforded by the recent decision of the Supreme Court of the United States and Supreme Courts of the several states, as well as the apparent benefits from the successful operations of the law in a large number of states, it is pleasing to note a decided change of sentiment in favor of this form of legislation.

The existing opposition to this form of legislation is greatly disappearing, being greatly confined at present to the charlatan, the faculties of a few of our low grade schools and the public press. We can trace the existence of statutes regulating medical practice from the thirteenth century; in the year 1237 licenses were only obtainable in Italy upon attendance at medical lectures for a period of five years, with preliminary entrance requirements demanding three years' work in philosophy.

The first degrees in medicine were evidently conferred in Italy in 1384. Laws

regulating medical practice have existed in all civilized countries for many centuries. It is unfortunate that in this country the diploma has been given a legal interpretation; in foreign countries it is simply an evidence of scientific value. With the advent of statutes regulating medical practice this custom upon the part of the courts is becoming abrogated. We cannot but conclude that in the older countries we have a superior profession in point of intelligence, with a more desirable environment; while with us we have, as a whole, men somewhat inferior in their preliminary training, a number triple that of any other country and a professional environment most undesirable.

The essentials of efficient medical legislation will incorporate the following features:

(1) The adoption of more rigid rules governing the admission of students to medical schools.

(2) The determination of the applicant's fitness to practice by an examination upon all the branches of medicine.

(3) The right to refuse or revoke licenses for unprofessional or dishonorable conduct.

(4) An adequate penalty for violation of the provisions of this variety of legislation.

(5) The boards of examiners to be appointed by the Governor, with proportionate representation by different schools of practice.

In support of demands for an adequate entrance requirement, it is conceded that medicine is now more nearly practiced from a scientific basis than at any time in its history. Without adequate preliminary fitness the broad field cannot be grasped nor its practice entrusted to persons without well trained minds.

Persons contemplating medicine as an avocation should give the scientific branches particular attention in preparation. A thorough course in the scientific department of our better equipped colleges or universities will permit of the successful accomplishment of the course now provided in the four years' curricula in a period of three years. I fully concur in the position taken by Professor Vaughan, however, in that the classical course does not prepare the student in a manner that he can safely abridge the work now required in the four years' curricula. The necessity of a thorough college training is more apparent now than at any previous time. While an immediate attempt, looking to the demand as above suggested, would probably meet with defeat, I am of the opinion, however, that by concert of action we can secure the adoption at this time of an elevation of the standard of fitness, requiring a college or university matriculation, or its equivalent, of all students wishing to commence the study of medicine. If the student cannot furnish a matriculation ticket from a recognized college or university, he or she should be required to undergo an examination that would admit to such course.

Under existing relations we cannot safely entrust this examination to the representatives of the teaching body. Except in a few of our high grade schools the entrance examination as at present conducted has been a farce. The factors leading to this condition are the same as outlined earlier in this paper. It is the result of college competition with an unnecessary multiplication, in recent years, of the number of teaching bodies. It is my judgment, based upon a somewhat varied and extended experience, that a majority of the schools in this country exist to serve the personal interests of the respective faculties rather than to serve the legitimate demands of the people. About twenty-five per cent. of our schools have a matriculation of less than sixty pupils.

The determination of the fitness of the student to commence the study of medicine should be placed in the hands of a body of men entirely disinterested. I know of no body better qualified to superintend the execution of this important trust than a state board of medical examiners. If not such a body, then a committee composed of members of a faculty of a college or university.

The minimum of entrance requirements should be uniform between the different states. Under the operations of the New York law regulating the examination of students commencing the study of medicine, much good is being accomplished. I desire to urge upon the profession the necessity of provisions in future acts looking to a rigid protection of the gateway to the study of medicine.

Having submitted satisfactory evidence of preliminary fitness, only such persons

should be admitted to undergo the professional test as have received their course of professional education at schools of medicine whose curricula of requirements are acceptable to the respective boards. A minimum of requirements, both as to time and teaching facilities, are as essential in measuring professional fitness as it is for similar purposes in universities, colleges, and our public school system. A school should not be recognized unless it is working under a minimum that will assure the graduation of a class of persons that can safely be entrusted with the care of the sick. In arriving at a conclusion upon this most important function I desire to particularly impress upon the members of these boards the fact that medicine as at present understood and practised is radically different from that of a few years ago. To comprehend requires years of study and a training in laboratory methods and surgical technique that can only be grasped when afforded by a person trained in methods of medical pedagogy. The clinical and laboratory facilites of many of our schools are shamefully inadequate. Several colleges known to the writer having operated for years with substantially no assets. It is the duty of each board to enquire fully into the facilities of each school represented by graduates who are applicants for degrees.

Having determined upon the fitness of the school to afford satisfactory courses of medical instruction, applicants holding degrees from such institutions should be admitted and a further test of fitness demanded by requiring an examination upon all the recognized branches of medicine. These examinations should be conducted by numbers, be scientific, and of sufficient severity to assure the public a thoroughly educated profession. Students from the respective schools of practice should undergo an examination upon the same questions, no necessity existing for questions not primary in character.

Licenses should not be refused or revoked for other than gross unprofessional or dishonorable conduct. In criminal cases it is not well to anticipate the processes of criminal law. The latter feature of our legislation has been instrumental in protecting the people from the professional charlatan in several states. Its provisions should be incorporated in all statutes regulating medical practice.

Owing to the difficulty in securing indictments and the consequent tardiness of legal processes the penalty for violations of the provisions of this form of legislation should be by penalties imposed by a justice or a municipal judge; the latter method has given satisfaction as far as I am aware. Reasonable efficiency upon the part of the officers of these boards have been awarded by a full compliance with the provisions of this form of statute in all instances. The Governor should have the appointing power, being responsible for the successful operations of the different state boards. Experience satisfies us that the so-called mixed boards are doing satisfactory work and operating in perfect harmony. Seemingly no excuse exists for the duplicate boards operating in a very few states. At present approximately thirty states possess legislation regulating medical practice. Seventeen states have a form of statute that fails to recognize the diploma as evidence of fitness to practice; consequently they may be classed with those states operating under efficient acts. In the latter class of states I particularly desire to call your attention to the results of work thus far accomplished. In a paper read before this learned body, at Detroit, Michigan, in 1892, I suggested the future influences of these boards as most important in shaping the future medical education in this country. I submit data at this time confirmatory of the position then taken and reaffirm my former suggestion that future legislation will in a great measure determine and govern the work of the teaching bodies of the country.

I am deeply indebted to the officers of the various boards for courtesies extended and regret that space forbids reference to many suggestions and conclusions arrived at in the work of the different boards.

Data have been obtained from the following named states: Alabama, Minnesota, Maryland, North Dakota, North Carolina, New York, New Jersey, Virginia, and Washington.

The subjoined table indicates briefly the work of these boards.

State.	Examined	Licensed	Rejected	Per Cent.
Alabama.....	647	558	89	0.862
Maryland.....	150	105	25	0.806
Minnesota.....	641	499	142	0.778
New York.....	967	797	170	0.824
New Jersey....	447	417	30	0.955
North Carolina	615	508	207	0.71
North Dakota.	81	76	5	0.938
Virginia.....	835	613	222	0.734
Washington...	207	167	40	0.806
Totals.....4670		3740	930	0.812

It will be observed that of four thousand six hundred and seventy persons examined but eighty-two and two-tenths per cent. were successful in securing a license. The nine hundred and thirty unsuccessful applicants have, we doubt not, principally located in states not protected by this form of legislation.

I am pleased to direct your attention to the good work of the Minnesota board. The first act regulating medical practice in this State became operative in March, 1883. It was the form of legislation at present in force in Illinois. It was in operation five years, being supplanted by the present law. The present act requires an examination of all persons commencing the practice of medicine and as amended by the last legislature, the minimum of requirements is changed, demanding that all graduates of later date than 1898, furnish satisfactory evidence of having attended at least four courses of lectures in different years, of not less than six months duration each.

We have in Minnesota a practical illustration of the position taken in my former paper: "that in medical legislation we have the only solution of the problem of higher medical education." Having drafted these bills and by force of circumstances been somewhat conspicuously aggresive in urging their enactment, I have, in consequence, witnessed their operations with some concern and interest. The result is all that the most sanguine could have anticipated. In a period of twelve years the proportion of physicians to the population in Minnesota has been reduced from one practitioner to every six hundred and fifty in 1883 to one to every one thousand in 1895. The State has been substantially rid of the travelling charlatan. The present able secretary, Mr. McDavitt, informs me that the medical census just completed is accurate and that the present operations of the law is quite faultless. We therefore conclude that in one State at least the number of physicians has been reduced to a number commensurate with the demands of the people.

The work of the New York board is attracting considerable attention. Notwithstanding pronounced opposition and many embarrassments the act is destined to strengthen the character of the profession in this state. From advance sheets kindly furnished for use in this paper, I observe the following verification of a position taken by the Secretary, James Russell Parsons, in his 1893 report. He reiterates that the records of the past year conclusively prove the position taken in 1893 report, "That the new law proves a barrier to the ingress of the incompetent, has operated to raise the standard of preliminary education, improve the methods of teaching and terms of study of the different schools of medicine."

The following resolution from the president and secretary of the board to the State Medical Society is significant and should meet the approval and support of every member of the profession of this great state, "*Resolved*, That in the opinion of this Board the best interests of the public and medical profession would be materially advanced by gradually increasing the minimum of requirements as to general preliminary education till no candidate be entitled to matriculate in 1897 at a degree granting medical school in this state, that has not completed at least a full high school course."

I am pleased to note that this bill has already passed the senate in New York and is in a fair way of becoming a law. If it becomes operative it will operate to improve the character of matriculate in New York schools and will be followed by similar legislation in other states. Greater coöperation is necessary between different state boards, as it is essential that harmony of policy exist as far as practicable. As in foreign countries their relations to the profession and teaching bodies is most important, their functions being that of professional censors of the conduct of the members of the profession, and guarding at the same time the avenues of entrance to professional work. It being the duties of these boards to protect the people from professional incompetency and charlatanry the duties are briefly comprehended in the performance of the following duties: 1. In establishing a minimum curriculum for all colleges whose alumni apply for a license to practice. 2. The individual examination of all persons wishing to practice medicine in the commonwealth. 3. A professional censorship, granting the right to refuse or revoke a license for incompetency and gross unprofessional or dishonorable conduct.

As this form of legislation becomes more fully understood and appreciated by

the better class of schools, it will be observed as one of the most certain and reliable avenues of placing before the profession of the country the character of work being done in all colleges whose alumni apply for a license. A school doing honest work has little to fear at the hands of these boards; upon the contrary, as suggested in my former paper, it will be found that the proportion of applicants able to pass successful examinations will be a certain index of the character of instruction afforded students in the respective schools.

While the proportion of applicants successful is only eighty-two per cent., it will be found that from the schools heretofore operating under a high grade of requirements that, thus far at least in the work of these boards, nearly all graduates are successful in obtaining a license upon examination. In substantiation of this conclusion I again submit data, using therein the same schools as in my former paper.

The following table indicates the proportion of students successful on examination from alumni of schools heretofore operating under three years' curricula:

Colleges.	Examined.	Licensed.	Rejected.	Per cent.
Harvard	31	31	0	1.000
Columbia	123	118	5	.952
Univ. of Penna.	126	123	3	.976
Univ. of Michigan	83	78	5	.940
Northwestern Univ.	26	22	4	.846
Univ. of Minnesota	149	148	1	.992
Totals	538	520	18	.964

I cannot but conclude, gentlemen, that efficient medical legislation will operate to bring about the following results, as applied to the profession and public:

1. It will protect the people by affording a profession of greater intelligence.

2. It will suppress charlatanry.

3. It will reduce the number of persons practising medicine to a number commensurate with the demands of the people.

4. It will reduce the number of medical colleges, at present far above legitimate demands.

5. It will raise the general standard of professional fitness, assuring us a professional prestige in the future becoming the most important of the learned professions.

In conclusion, we appeal to the profession to renew their efforts in securing efficient medical legislation, believing its operations will result most beneficially to both the public and profession.

DRIFTING, WHO, HOW, WHITHER.*

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The study of medical sociology exhibits a drifting in the matter of consultations. Rightly considered, the medical consultation is the "holy of holies" of associated work. He only can enter it aright, who, in the words of the Great Teacher, "hath clean hands and a pure heart; who hath not lifted up his soul unto vanity, nor sworn deceitfully."

Its history shows that the medical profession has ever taken the greatest interest in the qualifications of those seeking its fellowship. Not all calling themselves "doctors" have been admitted within its fold and many have been ejected therefrom who have entered by ways other than the strait gate.

Because of its jealousy of the proper character of its membership, the laity have termed the profession intolerant, bigoted, and narrow—so little has the world ever comprehended the sacred trust assumed by the physician.

The medical profession holds as sacred all knowledge acquired in the performance of its duties; it suffers in silence that the sick may recover health; it endures misrepresentation and obloquy because its nature and purpose are exalted above popular comprehension; it must be clean in thought, pure in life, and unselfish in work, if it would most effectively accomplish its purpose. Hence the necessity of ever keeping its ranks free from those lacking these qualities.

Differing standards of admission to the

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medical profession have prevailed in succeeding ages, different countries, peoples, and civilizations; but each has had some standard for both admitting and expelling members. No physician was ever burned at the stake by the medical profession for holding diverse views on matters of medical theory or practice, but many have been ostracised and regarded with contempt.

The standards of professional association are partly written, but more generally unwritten. Our written standard was adopted in 1847, but our unwritten one traces its origin to the first medical-man, being inherent in the nature of the medical profession—a part of the medical training. The son absorbed from his father, or the student from his preceptor medical knowledge, morals, and etiquette, and transmitted the same to their sons or students. Thus from hand to hand, mouth to ear, hand to eye, the real standard by which we accept or reject professional fellowship, has come to us as a direct personal testament from generations far antedating the earliest historic record.

The Roman Catholic Church regards the medical profession as *the* profession, all else but fragments, and in this respect it concurs with the estimate of itself by the profession. It is a gigantic tree whose germ sprouted when human beings first needed relief from suffering, whose leaves have been for the healing of the nations, and under whose sheltering bows the worn and distressed are protected from the scorching heat of life's physical diseases. The question before us is what shall be the relations of the medical profession to the "sects" and "isms" as homeophathy, eclecticism, etc? The code of ethics adopted by the American medical profession in 1847 makes the specific statement, that all professional association with members of these sects is derogatory to the medical profession. To "aid or abet" in the education of the believers in these sectarian views is also regarded with similar disfavor. For many years some have doubted whether ostracism was the wisest method of dealing with these sects. The number of doubters has, from year to year, so multiplied, that the student of medical sociology notes the change with increasing interest. He is led to inquire whether this drifting, starting in city and country, upon the mountains and in the valleys, from thousands of active centers scattered throughout the entire land, will finally lead the profession, to unitedly accept some method of dealing with medical sects, creditable to all and promotive of the best interests of the profession and humanity, or cause it to return to the primeval principal of an honorable fellowship, thoroughly trained in medical science and art.

Of this drifting we briefly note a few illustrations.

First in the matter of medical education.

When all medical colleges were manned by regulars, homeopaths and other sectarians obtained their scholastic education at these schools. Later the sectarians were able to educate their students in their own colleges, hospitals and dispensaries. When medical departments were established in state universities, the sectarians sought a position in the same, that they might teach their peculiar view. Notable among the institutions where this end was sought is Michigan University. Shortly after its foundation the homeopaths induced the State legislature to instruct the board of regents to place in the regular faculty a professor of homeopathic meteria medica and practice of medicine. For many years the agents refused to accede to this instruction; nor did they yield until it became an alternative of a sectarian professor or no university appropriation from the legislature. At this juncture the Michigan State Medical Society arose against the alliance and protested with such force as to cause the authorities to pause. The matter was at last carried to the American Medical Association and settled by the passing of a resolution to the effect that it was as derogatory to educate sectarians as it was to consult with the same after they were educated. The regents now set up a distinct homeopathic college (on paper). The phrase on paper is used because the homeopathic students still continue to be taught by regular teachers in the following subjects, *viz.*, chemistry, physiology, anatomy, bacteriology, hygiene, physiological chemistry, physics, pathology, histology, etc. That the regular professors should not be compelled to sign the diplomas of sectarians a new scheme of issuing university diplomas was adopted, by which no professors names appeared

thereupon but only those of the president and secretary. It will thus be seen that in spite of the resolution of the American Medical Association, the regular faculty have been and are constantly engaged in educating those whom they know to be sectarians in medicine. As this arrangement is universally acquiesced in by the profession, it is clear that in the matter of educating sectarians there has been a great drifting.

Of interest in this connection is the present agitation respecting the Homeopathic Medical College at Michigan University. Under the arrangement described this college failed to commend itself to the homeopaths, so that the members of this sect practically repudiated it. Hence its classes so diminished as to compel the regents to seek some other method more satisfactory to all parties. The plan which thus far has seemed to meet the wishes of the regular faculty, the board of regents, and a portion of the homeopathic faculty was the abolition of the so-called Homeopathic Medical College and the placing of a professor of homeopathic materia medica and practice of medicine in the faculty of the regular school. The final decision has not yet been announced. But that the deans of both the regular and homeopathic faculties, and the regular physician on the board of regents should unite in seeking to place on the faculty of the regular school a homeopathic professor, is significant of a drifting quite startling, and the more so as no public protest has been made against it by the regular profession. Other State universities than that of Michigan having medical departments are arranged along similar lines. These are all more or less responsive to the demands of the popular will, and this will, generally speaking, demands the full recognition of one or more of the "pathies" and "isms."

The first extensive revolt against the written law under consideration occurred in New York. It was preceded by an extremely bitter conflict and caused not a few ripples in the American Medical Association. The result of this revolt was that the friends of the written law established the New York State Medical Association and retained their allegiance to said law, while the opponents captured the old State Society, abrogated the written and returned to the unwritten law. To many this seemed a revolutionary proceeding, but when it is remembered that the revolting faction simply returned to the first principles of the medical profession, principles which satisfied the profession during thousands of years, the matter assumes a different aspect. The reformers only abrogate the written law of 1847, preferring the larger individual liberty of the profession anterior to that date. Previous to this, Massachusetts had a contest along similar lines, which resulted in affording sectarians equal rights with regulars, and turning popular prejudice against the medical profession.

The Mississippi Valley Medical Association gives its members entire freedom in the matter of consultations. Other medical societies in other places have taken similar action, notably in Chicago, Cleveland, etc.

An extensive knowledge of the habits of prominent physicians leads to the conclusion that a fat consultation fee is rarely refused because the attending physician is a sectarian. Personally the writer has often been told by colleagues that he was a fool because he regarded it a matter of gentlemanly honor to obey the spirit and letter of the law of consultations while he retains membership in societies having this law as a condition of membership.

Another marked illustration of this drifting was seen when a committee of its own appointment reported to the American Medical Association that it favored such alteration of the code of ethics as would permit consultations between all physicians properly educated, legally qualified to practice medicine, and of honorable reputation in the place where they live. When it is remembered that the committee so reporting individually obeys both the letter and spirit of the code bearing upon this point, it will be evident that their report indicates a drifting of the medical profession.

This drifting is farther seen, in that regulars and sectarians work side by side on boards of health, state and local, and on boards of other state institutions. This very imperfect sketch shows that, whether we like it or not the fact cannot be disguised, the professional relationships of regulars and irregulars are, at many points, multiplying and extending. If, finally, through these relationships the

sectarians shall be swallowed up by the medical profession, history will simply repeat itself. Within the memory of living physicians, specialists of all sorts were ranked as "irregular," and with them were classed "practitioners of massage," "electro-therapeutics," "hydro-therapeutics," etc. Now work in these fields is regarded as the most honorable, and the workers receive the largest returns in money, honor, and fame.

Whither does this drifting tend? The history of the past and the logic of existing social forces point to but one result; *viz.*, the absorption of all ideas that are true and helpful, and all persons who are honest and of good report into the medical profession. To this end larger liberty will be accorded the individual physician. He will be permitted to choose his professional associates from among those whom he knows to be properly educated, legally qualified to practise medicine where they reside, and of good report. Qualifications other than these will be regarded as purely local and temporary in their necessity and temporary in their existence, and to be controlled entirely by the individual physician. It were wiser to object to consultation with a physician because of known ignorance, lack of skill, dishonest methods, or disreputable character, than because of his sectarian name. Objection on the first ground is readily understood by any layman, but objection on the second fails to commend itself to most persons, and not infrequently brings the objecting physician into discredit.

The medical profession originated in the effort to systematically relieve human suffering and promote human health. Amid the glimmerings of dawning science, it jealously guarded each addition to its knowledge and incidentally contributed largely to the advancement of science. In every age parasites have sought to ally themselves with the medical profession that they might use its resources to plunder a suffering, credulous humanity. To exclude such parasites from the profession has ever occasioned perplexing thought, and for this purpose the unwritten custom of centuries was maintained, and to add still more in the same direction, in 1847, the American Medical Association adopted the written law of consultations now in force. But from the facts presented it is clear that at the present this law fails of its benificent design. Large bodies of physicians no longer regard the written law as in accord with the nature of the medical profession, and believe that this law should either be abolished or made to accord with the changed condition of our environment.

Apparently, if the profession is to present a united front to the world on this matter, a new statement must be made, satisfactory to the majority. All agree that the profession should be kept intelligent and clean, but all do not now unite upon a practicable method for attaining this end. Until such a method is devised and adopted with substantial unanimity, the drifting will continue; a drifting from a position incomprehensible by the laity towards one clear to every person; a drifting from a position calling for defence and explanation, towards a vantage ground commanding the entire field; a drifting from an indefinite standard towards a definite one; a drifting from a position affording no hope to those outside its circle, towards one giving hope to every intelligent, honest practitioner; a drifting from a position which loses the good work done by institutions other than its own, towards one in which it can absorb all good work, wherever done, and all good workers wherever trained; a drifting from a position of inflexible definition towards one of intelligent accord with forces animating the medical profession.

Urging on this drifting are very antagonistic elements. Physicians of the purest motives and highest character coöperate with those of selfish character and despicable motives. Promoting this drifting are state university medical schools, state medical examining boards, state and local boards of health, specialists, physicians, avaricious for fame, power or wealth, irrespective of the means by which they may attain their ends, and physicians jealous of professional honor and unselfishly serving humanity.

All these however are but instruments of far larger forces, which form a part of the development of the medical profession as a portion of the nineteenth century civilization. Of these we note briefly the following. First—The intellectual atmosphere of the century has become softer, as seen in the diminishing asperity in religious, social, scientific, political and

medical circles. Quite generally, we are learning that our opponents may be gentlemen, scholars, and valuable citizens, while vigorously opposing our individual beliefs and practices. Significant of the quality of this atmosphere was the meeting at Chicago of the representatives of all religions, and their discussing, under one roof, each others religious tenets. This atmosphere of free thought and untrammeled practice has stimulated men to expend their energies, without diversion, in the investigation of new fields or enriching old ones; to develop good rather than destroy evil; to prevent infection more than to cure the infected; to establish the conditions needful to produce level-headed physicians, rather than fight sectarian titles.

Second—With the advancing century humanity has acquired a larger faith in the ability of truth to look after its own interests, if only each individual did his own life-work in the most perfect manner. Hence, physicians have been disposed to give plenty of rope to the offenders of truth, in the belief that thus they will best dispose of themselves after the classical method of Judas Iscariot.

Third—The rapid incubation of physicians, by emigration of the products of the doctor factories of other countries, (an importation which pays no government duty), and by the swarms yearly graduating from the medical schools of the United States, has swelled our ranks to quite uncomfortable proportions. The situation is still farther aggravated by the fact that vast numbers of patients, which naturally should contribute to the support of physicians, are largely absorbed by hospitals, ambulances, dispensaries, contract physicians, railway physicians, accident insurance companies, medical college clinics, and numerous private institutions supported by shrewd advertising. This crowding compels each physician to cultivate his field to the fullest degree possible. He is compelled to know all about the sectarians as well as the physicians of his field. This close contact has proved that some sectarians are better educated, more gentlemanly and honorable than some regulars. This personal knowledge renders it possible for him to coöperate with the sectarians in the management of cases in which they have a mutual interest and profit. Except for the crowding, this knowledge would have been difficult of attainment; now it leads him to believe that professional character and ability are of higher importance than a sectarian name, and so powerfully drifts him away from the written law of consultations.

Fourth—Experience has shown that the fighting of a name, as that of a sectarian, is unprofitable to the fighter and the medical profession. Here, as elsewhere, "The blood of the martyrs is the seed of the church." Persecution of sectarians, under their official designation, but increases their prosperity and discredits the medical profession. The profession is drifting to the practice of ignoring the special name and of looking after qualifications for doing creditable work, of persuading individuals to abandon untenable errors in theory or practice, or better still, of so training medical students that they will avoid "isms" and "pathies," and intelligently enter upon their relations with active physicians.

Conclusions.—1. In the matter of consultations the medical profession is drifting from the law written in 1847 to the unwritten law inherent in the medical profession since the first doctor entered upon his work—far anterior to any historic record.

2. This drifting was inaugurated and is continued by forces and agencies which have made the nineteenth century the most remarkable in history—individual men or institutions have merely served as instruments for the operation of these forces and agencies.

3. There need be no anxiety concerning this drifting. The medical profession will always remain anchored to its fundamental nature of a competent honorable brotherhood. The changes sought are merely the substitution of a thing of universal application for a sectarian name of limited scope. It is sought to exclude from fellowship all who are incompetent or disreputable, whether they have or have not a sectarian name. The final attainment of this drifting will mark a far higher standard of professional life, and a truer exemplification of individual liberty.

4. It is believed that we are drifting towards the practical adoption of the following: "Every physician shall be deemed eligible for professional consultation who has shown that he has such pre-

liminary training as enabled him to comprehend the study of medicine; has fully mastered the elements of medical science and art; has complied with existing laws respecting physicians in the state of his residence; and who has maintained an honorable reputation. Of these qualifications the physicians of his locality shall be the final judges. If those who know him best endorse him, then shall he be freely admitted to membership in all medical organizations and be eligible for consultations."

5. If the profession fails to agree upon a statement in substance like the preceding, the logic of events points to a rejection of the entire written law of 1847, and a return to the unwritten law of previous centuries—the one now holding sway in all countries except the United States.

OSTEO-LIPO-CHONDROMA OF THE UPPER END OF THE HUMERUS; RESECTION OF HUMERUS.*

THOMAS R. NEILSON, M. D., PHILADELPHIA, PA.

The case is that of a young man who suffered from a tumor involving the head and upper end of the shaft of the right humerus. I saw him first in the early part of last February. His history was as follows: J. T. P., twenty-one years of age, worked on a farm until two years ago, when he learned the trade of electrical construction, in which his work has been light. Family history good; no history of tumors among relatives. In June, 1893, his attention was called by a fellow-workman, who saw him stripped, to an enlargement of the humerus the size of a pigeon's egg. One year later it had slowly grown to twice that size. Afterward it grew more rapidly, and in November, 1894, it began to cause inconvenience by its size—limiting the motions of the joint, and giving rise to a sensation of numbness occupying the back of the arm as far down as the elbow; there was also loss of sensation in the fingers, and he noticed some diminution of power in the hand, especially in using the hammer. At no time was there any pain in the growth. There was no history of injury to the shoulder.

Upon examination I found the upper end of the humerus markedly enlarged, the growth being hard and immovable and having an irregular surface, the larger portion of it projecting inward toward the axilla, and preventing complete adduction of the arm. From the history, the slowness of the growth, the absence of pain, the irregularity of the surface, and the uniform density of the mass, I believed the tumor to be an enchondroma, and felt that resection was to be advised. In this opinion Prof. Ashhurst, who kindly examined the patient for me, concurred.

The patient was admitted to the Episcopal Hospital on February 7, 1895. The measurements of the right shoulder as compared with the opposite side were as follows: Around the most prominent part of the head of the bone, just below the acromion (arm adducted), right, 18 inches; left, 15 inches; two inches below the acromion (arm adducted) the circumference of the right shoulder was 14¼ inches, and of the left 12 inches.

Operation. On February 13, with the assistance of my colleagues, Drs. Harte and H. C. Deaver, I resected the growth by the deltoid flap operation. Starting my incision at the tip of the coracoid process, I carried it downward along the groove between the deltoid and pectoralis major, and then across the arm to the outer side at the level of the insertion of the deltoid. I next dissected back the skin and superficial fascia about an inch for the whole extent of the incision, and then divided the deltoid transversely about two inches above its insertion. The flap being turned back, the tendon of the long head of the biceps was freed from its groove and held to one side, the capsule of the joint opened,

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the insertions of the supra and infra-spinatus and teres minor severed, and the attachments of the sub-scapularis divided. The growth was so large thas it was found impossible to complete disarticulation until the attachments of the coraco-brachialis and of the pectoralis major were also divided. This being accomplished I sawed through the humerus just above the insertion of the deltoid. After making the section I noticed a suspicious spot of degenerated tissue remaining, and, pushing back the periosteum with the insertion of deltoid, I cut off another inch of the bone.

Throughout the operation there was no arterial hemorrhage of moment, only a few muscular branches requiring ligature; but the cephalic vein was, unfortunately, slightly torn at the beginning of the operation while pushing it aside in the groove between the deltoid and the pectoralis major, and again later when delivering the growth. I tied it below the tear, and again some distance further up, and resected the intervening segment—about five inches in length.

This being done, the wound was flushed with normal salt solution, and the deltoid united with several quilted sutures of kangaroo-tendon. A large rubber drainage tube was inserted, and the wound closed with silk sutures. A bichloride-gauze dressing was applied and the arm bandaged to the side, a large axillary pad supporting it.

The patient did remarkably well and the wound healed kindly.

There was no noteworthy occurrence until the eighteenth day, when it was found that, at a point about the centre of the wound just over the anterior axillary fold, the union had broken down, and there was a slight purulent discharge. The cause of this was found to be one of the kangaroo-tendon sutures, which was working its way out. Four days later another of these sutures was discharged from the little sinus, and again in five days a third one. The sinus then healed firmly.

On March 30th the patient was discharged from the hospital. At that time the contraction of the deltoid showed that it had united firmly, in spite of the fact that three of the kangaroo sutures had cut their way out, owing to imperfect sterilization.

The patient has now very good motion of the arm, and he tells me that he has returned to his former work at electrical construction. The specimen shows the tumor to be nearly twice the size of the fist, and to have grown largely toward the inner aspect of the bone. A section of the growth was examined by Dr. Joseph McFarland, pathologist to the Hospital, who reported the microscopical diagnosis to be osteo-lipo-chondroma.

DEFORMITIES FOLLOWING FRACTURES OF THE SHAFTS OF BONES, WITH OBSERVATIONS ON THE TREATMENT.*

THOMAS H. MANLEY, M.D., NEW YORK.

Serious fractures of the shafts of long bones constitute a considerable proportion of all the major traumatisms of the body. Many are attended with danger to the vitality of the limb by such destruction as may lead to ultimate gangrene; while a considerable number leave various grades of deformity, with or without shortening.

Deformity after fracture is dependent on various causes, some of which are preventable and others are not. These have reference to local conditions, the quality of the fracture, the age of the patient, the state of the general health and the treatment instituted.

Fractures which extend into a joint or involve an articular diastasis, or subluxations with an extensive laceration of ligament and tendon, are liable to unite with an excessive callous formation and more or less distortion of contour.

In one class of fracture-deformities but little functional impairment or diminished strength is experienced, while in fracture

*Author's abstract of paper read before the American Medical Association, May, 1895.

dislocations ultimate impediment in action is the marked characteristic. This it notably the case in the typical Potts' at the ankle joint, Colles' at the wrist and elbow-joint fractures where the bone gives way through the condyles of the humerus. Under many circumstances we are obliged to content ourselves with endeavoring to save the damaged limb, quite irrespective of the quality of deformity.

Preventable causes of deformity are neglect, or want of skill in treatment. In all simple uncomplicated fractures the tendency of the fragments is to fall into place and unite without resulting in displacement; but in certain varieties in order to prevent distortion we must anticipate those conditions which lead to it. This is only possible through a familiarity with the various phases of osseous regeneration, which can only be acquired by a knowledge of the correct principle of fracture-therapy, with ample opportunity to observe and treat a large number of cases.

Theoretically the successful treatment of a fracture is the essence of simplicity; for, mechanically, there is no displacement which we cannot overcome and no shortening that may not be obviated. But when we bear in mind that we are dealing with living structures which, after injury possessing but a feeble vitality, are not prone to bear pressure well; that the tolerance of the tissues or structures to manipulation widely varies; and that commonly we have to deal with severe internal injuries simultaneously, the problem is not so simple.

In strumous and rickety patients union may be greatly delayed or be very imperfect. In others again it may fail for weeks and then for some unknown reason ossification will suddenly set in and consolidate the fragments in a few days. Where there has been but slight damage to the overlying parts in young subjects, and perfect reposition is possible, complete consolidation may occur in one week. Therefore if we relax our vigilance and fail to provide proper support at the right time, a deflection or displacement is quite certain to result. This is most liable to occur when plaster-of-Paris is employed, because the gypsum dressing fails to hold the fragments steady after the swelling of the limb subsides; nor can it be well removed without jarring the limb. It so hermetically conceals everything that nothing short of its entire removal will enable us to frequently examine the limb during the course of treatment. In fractures of the femur the patient's health, failing under compulsory confinement to bed, may so suffer that we are obliged to raise them and relax their supports before final consolidation, when by so doing the tendency to overriding or bowing of the fragments will be greatly enhanced.

SURGICAL MEASURES FOR THE RELIEF OF DEFORMITIES AFTER FRACTURE.

As it is true that deformity cannot be prevented in a considerable number of fractures, it is equally so that but comparatively few can be overcome after union by surgical measures, except in occasional cases at the elbow in youths. For those fractures extending into joints little or nothing can be promised by surgical operation in the way of overcoming a deformity, though for the impediment in function, by anchylosis or wasting, very much may be accomplished.

Surgical operations which may be utilized to overcome this class of deformities may be technically divided into: 1, Osteorection; 2, osteoclasis; 3, osteotomy; 4, osteectomy.

The first two may be utilized safely and with advantage in a large number of cases, while the two latter are not to be employed unless the extent of deformity is great, or is a source of constant pain, or seriously impairs the limb. At any stage of fracture treatment before ossification is complete we may employ osteorection—a bending of the bone—with great advantage. In certain femoral cases with marked bowing and shortening, utilized at the proper time it is marvelous how we may by a simple bending of the shaft into line, at once restore symmetry and normal length.

Osteoclasis, or re-fracture, succeeds well in the smaller bones of growing subjects, but with the large bone shafts, as the femur, while we may succeed in effecting a re-fracture, it may not be at the right point to be of any benefit and, besides, in applying the necessary force we may do serious damage to the large blood-trunks or to nerves which are in near contact. The period at which osteoclasis can be utilized with advantage and safety is in the transitional stage from the

endo-chondral to ossific development while the callous is yet succulent and pliant. After the consolidation is complete and the hardening stages are past the most certain and reliable success of fracturing a bone over the site of a recent fracture is to resort to osteotomy.

This, it should be remembered, in this class of cases is a severe procedure which is by no means uniformly successful in its results. In some the extent of reaction, local and general, is very great. In the femoral deformities of the adult the extreme intolerance of the medullary substance to mechanical interference renders it an operation of great uncertainty and always full of peril. It will do better in the bones of the leg and upper extremity. The most rigorous asepsis must always be observed, and we should have a care that no irritating chemicals or hot water come in contact with the osseous elements.

Oste-ectomy, or excision of the bone-substance, is rarely required in deformities of the shafts after breaks; but in three difficult cases of clavicular fracture, with resulting hyperostosis and displacement attended with arm paralysis from pressure of the callous on the brachial plexus, it has served me a most useful purpose. Like osteotomy, it is a severe undertaking which should not be resorted to unless its indications are clear and the environment of our patient is such as will warrant the risk which it always entails.

To recapitulate, it may be said that in this class of surgical cases, as in many others, "an ounce of prevention is worth a pound of cure"; that the main object is to endeavor, if possible, in all cases to obviate deformity in the primary stages of treatment; and when one has any doubts as to his own ability to properly manage a complicated case, it will tend to safeguard his own reputation and will be in the interests of his patient if he summons an experienced surgeon. When there is reasonable ground for believing that a marked deviation is setting in, active, early interference will in many cases readily correct it, while if permitted to remain until solidification and eburnation are advanced, nothing short of a major operation, quite on a par with an amputation, can even give us hope for restoration of contour and full functional action in the now distorted limb.

REMARKS UPON TREPHINING THE CRANIUM.

JOHN ASHHURST, JR., M.D.,* PHILADELPHIA, PA.

I find that I have performed the operation of trephining the skull forty-one times, not including those cases in which I have merely opened the frontal sinuses, nor those in which I have removed bone-fragments without using the trephine. Of these forty-one cases twenty ended in recovery and twenty-one in death, showing a mortality of little more than 50 per cent. In many instances I have refrained from interference when other surgeons would have operated, so that my cases have been of an unfavorable type, and the mortality has no doubt been higher than if I had operated more indiscriminately.

The details of these cases are as follows: Twenty-four were primary operations for compound fracture, with eleven recoveries and thirteen deaths; two were operations during the intermediate period, both successful; and three were secondary operations, with one recovery and two deaths, both in cases of abscess.

As far as it goes this analysis confirms what has so often been pointed out, that there is not so much urgency in operating as upon compound fractures of the extremities. In the latter, the sooner the operation is done, if the patient is able to bear it, the better. This has long been the rule in military surgery when amputation is required, and some years ago I collected extensive statistics from civil practice which showed that the same rule of procedure applied there. But this is not so

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in compound fractures of the skull, and the proportion of recoveries is larger in delayed cases than when the operation is done immediately, as is well shown by Bluhm's statistics. At the same time, in a bad case, where an operation is evidently necessary, I do not advise delay; but early trephining is not so imperative as is early amputation for compound fractures of the long bones. Trephining for suppuration, occuring as the result of injury, is usually fatal.

In three cases I have operated for syphilitic disease, with two deaths and one recovery. In the latter case, besides evidence of syphilitic brain disease, there were painful nodes on the skull, and I operated by dividing the nodes with a Hey's saw, and then made a single opening with the trephine, so as to relieve the intracranial tension. The patient was much benefited for a time, and left the hospital relieved, though not cured. The fatal cases were in patients suffering from syphilis of long standing, with necrosis and intracranial suppuration.

I have been induced to trephine in three cases of epilepsy, all the patients recovering from the operation. One, an epileptic with suicidal tendencies, came under my care at the University Hospital in October, 1886. After the operation the patient was much benefited as long as he remained under observation. In the other two there was no evident improvement, though both did well as regarded the operation. In a case of melancholia following an old fracture of the skull, trephining gave no relief, and of two cases in which I operated for convulsions, etc., following old injury, one terminated fatally, while no permanent gain resulted in the other.

I have operated unsuccessfully upon three patients for the cerebral complications resulting from disease of the middle ear. Statistics show that many lives have been saved by trephining under these circumstances, but in my own cases, though the abscesses have been reached and evacuated, the patients have died.

Although I have thus operated in twenty-one fatal cases by trephining, in only one case did the operation seem to have been responsible for the patient's death. This case was that of a child with a depressed fracture over the lateral sinus. On removing the depressed bone profuse hemorrhage occurred, and the patient died in consequence. I had not then learned the futility of attempting to check bleeding from the brain sinuses, except by prompt plugging. I have since had four cases in which the longitudinal sinus was opened, and in two of them the patients recovered. In a third, bleeding was readily controlled by pressure, but ultimately death followed; while in the fourth a clot had formed in the sinus, giving time to apply a lateral suture to the divided vessel. This case was an interesting one; it was that of a boy who had been injured by a nitro-glycerin explosion, a piece of the metal being found lodged in the longitudinal sinus, causing a clot as mentioned.

As regards the locality of the injury, I find that of fractures of the frontal bone, omitting those simply involving the frontal sinuses, there were five, with four recoveries and one death. These figures do not confirm the general impression that there is special danger in fractures of the frontal bone. Indeed, much more depends upon the amount of injury to the brain than upon the place of the fracture. In one case the indication for trephining was bleeding from the middle meningeal artery, and in that case the patient recovered. He was an athlete, who, while playing football came into violent collision with another player, sustaining a fissured fracture of the parietal bone. He was stunned at the time, but soon recovered consciousness; in the course of half an hour, however, convulsions came on, followed by coma. He was brought to the hospital, and I applied the trephine, evacuating a considerable quantity of clot; the patient made an uninterrupted recovery.

In cases where there is a marked depressed fracture of the skull, whether to leave it and wait for developments, or to proceed at once, I wish to be understood as saying that I would not push the argument from statistics, and that in cases in which the operation was clearly indicated I would operate at once; but that in cases where there was a doubt in the mind of the surgeon as to whether or not he should operate, a short delay would not be as injurious as it would be in the case of amputation. In cases of impacted fracture my practice has been, as a rule, not to interfere in the absence of symptoms. In cases where there is no opening into the cranial cavity and where there are no cere-

bral symptoms, I think the surgeon is justified in waiting for more definite indications. At the same time I find myself more inclined to operate than I was twenty years ago, on account of the greater safety afforded by modern methods of wound treatment.

I do not recall any case of discharge of brain-matter from the ear, but loss of brain-substance not infrequently occurs at the seat of fracture. With regard to the watery discharge from the ear I have often observed that as long as the discharge continues the patient may do well, but that if it suddenly stops the patient will probably become comatose and die in a few hours; the arrest of this flow seems to increase the pressure upon the brain. Old residents of the Pennsylvania Hospital will remember a case under the care of the late Professor Joseph Pancoast, in which there had been such a free discharge from the ear that it had been collected in a cup to be measured. The cup was found empty in the morning, and upon investigation it was learned that the night watchman had mistaken the fluid for medicine and had administered it to the patient, a tablespoonful every three hours, during the night.

With regard to fractures at the base of the skull, I have not seen any case which I thought trephining indicated. I think that an attempt should be made to prevent infection in these cases by cleansing the ears, and, as far as possible, the nasal and buccal cavities. After securing cleanliness I rely upon the use of calomel and Dover's powder, with hygienic treatment, rest in bed, cold to the head, laxative enemata, etc., and by these means recovery will be obtained in a considerable number of cases.

EXPERIENCES IN THE TREATMENT OF DIPHTHERIA.*

WILLIAM SHAW STEWART, A. M., M. D.,† PHILADELPHIA, PA.

In the limits of a ten-minute paper on *treatment* of diphtheria there is not time to enter into a differential diagnosis of the true and false or spurious and genuine. I will, therefore, trust that you will credit me with a knowledge of the various forms, conditions and characteristics of this disease after being in constant general practice for more than thirty-two years. It was my privilege, while a student of medicine, in 1861, to apply a treatment for this disease successfully—a remedy which has been, with me, most efficacious ever since.

At that time, diphtheria of a most virulent type was prevailing in Western Pennsylvania. The doctors were unable to combat it or arrest its progress. In a village near my home a child complained of sore throat, the family physician was not available, I was requested to see the child, a boy about two years old. The patches of membrane were plainly visible on both tonsils. The only remedy at hand was the Tinctura-ferri-chloridi; a swab, saturated in a solution of the iron, applied briskly over the tonsils dislodged the membrane. Courage was inspired by this result and the application was repeated several times daily until the child made a complete recovery. Another member of the same family took the disease, was subjected to the same treatment and recovered. I was then obliged to leave the locality to attend lectures in Philadelphia, but learned subsequently that a third case in the family succumbed to the disease; the family physician was summoned but failed to effect a cure. I was consequently impressed with the fortunate hit on so valuable a remedy.

Immediately after graduating from the Jefferson College, I went before the State Examining Board and was commissioned Assistant Surgeon in the Army of the Potomac. While in winter quarters I had abundant opportunity to study this disease

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and was led to experiment with the application of the well known styptic which was among the army supplies, liquid persulphate of iron. It proved to be the "sine qua non," and your speaker realized he could truly exclaim "Eureka! Eureka!" After the close of the war, on engaging in general practice and joining the Philadelphia County Medical Society, I was persuaded that it would be an advantage to the profession and a relief to humanity to announce the success attending the new method of treatment. Accordingly I read a paper before the Society. In opening the discussion on the value of the new method, a prominent specialist, who was regarded as an authority on throat diseases, did not hesitate to annihilate the young doctor in his opening sentence, "I condemn the doctor's paper in toto." Such a squelching remark, followed by the assertion that the cases must have been spurious or his statements false, prevented any credence being given to the valuable discovery. I was practically left to pursue my course alone in the treatment of this dreadful disease.

It is now thirty-four years since I began this treatment and I am no less sanguine about the value of liq. ferri sub-sulphatis, and I can now state further that I have never in all these years lost an adult having an uncomplicated case of diphtheria, and only one where pneumonia was the complication and the patient really died from the effects of the latter. Can we expect better results from antitoxine? I must admit, with great regret, that the record is not so gratifying with children, although from comparison I find, even among them, this remedy is exceptionally successful.

The difficulty is in the application. To overcome this, in the families regularly under my care, I impress upon parents and nurses the importance of teaching young children to gargle, using plain water, thus preparing them for an emergency. It is imperative that the membrane should be cleaned from the throat as it re-forms, the swabbing must be not only carefully but thoroughly done. A busy practitioner can rarely find time to visit his patient more than twice a day, so co-operation on the part of parents, nurses and, if possible, the sufferer, greatly facilitates the end to be obtained. The true secret of the successful treatment of diphtheria is to keep the deposits cleaned off and thus prevent propagation—for in the development of the germ seems to lie the devitalizing element.

Internally, a saturated solution, potassium chlorate, in teaspoonful doses (equivalent to about 7 grains) given every two hours, in each dose two drops of the subsulphate of iron, if taken in the beginning, will often arrest the development of the disease, but if the patches have appeared, you dare not rely on internal medication alone, but should immediately resort to the gargle of Monsel's Solution in the proportion of a drachm to the ½ pint of cold or hot water, as is most agreeable to the patient. There is but one rule for the gargle. At each time the patient must not desist until by repeated persistent efforts every particle of the membrane is removed, and repetition every half hour or oftener is necessary. If the patient cannot gargle, there should be the careful application of a swab, saturated in diluted sub-sulphate of iron, making as little abrasion of the mucous membrane as possible, repeated as frequently as needed to keep the disease under control, not permitting the patient to sleep more than two hours at a time during the night or day.

My experience warrants the assertion that faithful, persistent use of this remedy in the manner stated will carry the patient over the crisis of the most malignant attack in from four to five days, provided, the patient comes under your care in the early stages of the disease.

Causes.—This being a practical rather than a scientific paper on this subject, permit me to mention some of the ever possible sources of diphtheria. Putridity arising from decaying vegetable or animal matter in the cellar, house or yard, the decomposing of animal matter, such as a mouse or rat, under the floor or in a heater, as experience has proved, also the unflushed sewer, containing debris from street, public house or private dwelling.

Communicability.—Diphtheria, if neglected in one case, will soon become a nidus from which every member of a household may be infected, but if promptly attended, and the membrane kept cleaned off, there is little or no danger of contagion. In my experience, on more than one occasion, I have been able to determine the nature of the disease before speaking to the patient I have been sum-

moned to see, by the characteristic odor. I remember, during the Centennial being called to see a man who was ill; he had brought his bride from Jefferson County on their wedding trip, to the Exhibition. Stating the trouble to be diphtheria, when I entered the room, shrieks of despair from the bride and demonstrations of grief warned against any further declarations. Being assured that her husband would be well in about five days, she became calm and told me that in their county this disease was an epidemic and almost every case proved fatal. The disease yielded to treatment and the last visit was made on the fifth day. Because of the prompt and successful results in this case an urgent request came through the mail for the name of the medicine which had been so effectual. I need hardly add, it gave me great pleasure to respond, and to give specific directions how to use the remedy.

In this connection, as confirmatory proof of the value of the medicine, I will refer you to a clinical report published in the MEDICAL AND SURGICAL REPORTER, of Phiiladelphia, May 12, 1894, which was quoted from the Clinical Society of Louisville. This is the language of Dr. P. Gunteman:

"I want to give my testimony to a drug that I have used for the last two years, exclusively in the treatment of diphtheria, i.e., the local application of the subsulphate of iron, since the report of some physicians from Bowling Green, Kentucky, whose statement was to the effect that they had treated 250 cases by this method with only one death. I had treated 18 cases and no death." In the discussion which followed, Dr. J. W. Irwin said, "I listened with a great deal of interest to the remarks made by Dr. Gunteman concerning the use of Monsel's Solution, locally, in the treatment of diphtheria, etc., and I had just read an article written by somebody in Pennsylvania, who wrote of the wonderful effect of this remedy, and like every new thing it was lauded to the skies, etc."

The "somebody in Pennsylvania," who lauded the remedy then, is still as sanguine as ever that he made no mistake in proclaiming the virtues of sub-sulphate of iron as a local treatment of diphtheria. Although I have expressed my confidence in the local application of liquor ferri subsulphatis as superior to any other remedy, yet do not understand that I would have you depend entirely upon this powerful styptic. I have at times been obliged to use a blunt curette to scrape off the membrane, afterwards applying cosmoline, sulphur and soothing unguents. In the post-nasal development of the disease, I do not hesitate to pass an aluminum probe through both nostrils, the probe curved to suit, wrapped with absorbent cotton and saturated with whatever the conditions suggest in order to destroy the germs of the disease, which I have frequently found passing along the mucous track and the channels leading from the openings of the eyes and ears. As a final word I would urge upon you not to undertake to treat a case of diphtheria unless you do your work fearlessly, heroically, attentively and thoroughly, and you will not fail in your results.

THE PROTRACTED FEVERS OF WEST TENNESSEE.*

T. R. MOSS, M. D., DYERSBURG, TENN.

In West Tennessee we have a form of fever which, I think, has been more prevalent during the past twenty years then at any time prior to this period. It generally continues about four weeks, but frequently longer when complicated. There has been much said and written concerning a proper name for it but it has never been settled beyond controversy as in other sections of the country is typhoid fever, scarlet fever, or variola, etc., the identity of which no one calls in question. I cannot say if it is clinically the same fever as is met with in other states of similar climatic influence; but I can say, however, that the descriptions which I see from time to time do not correspond entirely with those cases I am accustomed to deal with. That the name typho-malarial as given to a certain fever by Dr. Joseph J. Woodward in 1863, still has its advocates, no better proof can be given than the following, from the pen of the

*Read before the Tennessee State Medical Society, April, 1895.

worthy man, now deceased, whose name appears as President of the Tennessee State Medical Society: "Is Typho-Malarial Fever a Disease Per Se?"

Summarizing I have reached the following conclusions: *First*—The fever we have in this part of the country every autumn is not an acute infectious disease as is typhoid fever. *Second*—Typho is probably due to pathological changes, the result of long continued exposure to malarial influences or theoretically to one or more of the six or eight parasites found in the blood of patients suffering from malarial fevers. To some of these quinine is said to be nontoxic. Typhoid is due to a specific poison. *Third*—The incubation and duration of typho are much less fixed than that in typhoid. *Fourth*—The temperature range of typho is less uniform and regular than that of typhoid. *Fifth*—Diarrhœa is often wanting in typho and rarely absent after the first week in typhoid. *Sixth*—The typho tongue never evidences the gravity of disease that the typhoid tongue does. *Seventh*—I have never seen sordes on the teeth, gums, lips and in the roof of the mouth in typho, but have frequently in typhoid. *Eighth*—I have never discovered the typhoid eruption on the persons of typho-malarial patients. It occurs in eighty-eight per cent of typhoid patients. *Ninth*—Bronchial and pulmonary symptoms are rare in typho, common in typhoid. *Tenth*—The nervous symptoms in typho are absolutely wanting in comparison to their constancy and gravity in typhoid. *Eleventh*—The great pathology of typhoid fever as discovered by the symptoms, existing in a much smaller percentage of cases in typho than in typhoid. *Twelfth*—By the intestinal dejecta typhoid fever is disseminated, but there is no evidence that this is true of the dejecta of typho. Finally, even if the so-called typho-malaria fever of this country is really typhoid fever, the abandonment of the name typho would, in the present status of our knowledge, be premature. Thus it is to be seen, gentlemen, that there are still those who cling to the name typho-malarial, notwithstanding much has been said and written in favor of calling the disease typhoid fever. This fever is no respecter of persons except that those at the extremes of life are probably not so susceptible to its influence.

The onset of an attack occasionally appears to be sudden, but usually it is gradual.

In nearly all cases, if sought for, a history will be elicited of general malaise, loss of appetite, slight fever, a furred coat on the tongue, constipation and headache extending back for one or two weeks. At his first visit the physician usually finds his patient with a temperature from 101½° to 104° or higher, and, by the way, the themometric range at the first visit is quite often a fair index as to the gravity of the case. The tongue is generally red at the tip and edges, the triangular red spot at the tip being the most important sign connected with that organ in the beginning when it is necessary to give an opinion as to the probable duration of the illness.

I regard the red tip and edges of more importance as a diagnostic sign than the pale flabby tongue, on the edges of which the teeth's print can be seen. I frequently meet with this character of tongue, but I do not think it has any great significance in so far as pertains to this special form of fever. The pulse is rather peculiar, in the fact that quite often for a number of days it ranges from seventy-five to ninety, while the temperature is 102½° to 104°. I cannot account for this and would like to know if the experience of others corroborates my own. As the disease continues and the heart's action grows weaker, the pulse increases, buf the temperature curve so characteristic of typhoid fever in its typical form is entirely wanting, and quite often the fever is as high, or higher, at the first visit as at any time thereafter. According to the rule which most fevers obey the temperature is lower in the forenoon than in the afternoon. A temperature of 103½° or 104° in the morning is quite significant, and prompt measures should be instituted to reduce it, else as night approaches it will get very high, probably reaching 105°, or higher.

In some instances the disease is so mild that patients will not remain in bed, but drag themselves around for several weeks with a temperature of 99½° or 100°. In a case of ordinary severity properly treated the temperature ranges from about 102° in the forenoon to 104° in the afternoon, and quite often in addition to the afternoon rise there will be another at some time

during the night, usually between 12 and 4 o'clock. There may be others at irregular intervals but most usually only one or two, coming as stated. These exacerbations are frequently attended with rigors, the patient calls for more to cover him and thinks he is about to freeze when the thermometer under the tongue registers 104½° or 105°, and when in this condition patients will usually protest most vigorously against cold water to the body, and usually a warm water bath will be consented to. In most cases the bowels are not troublesome, but generally laxatives have to be administered to make them act as often as is necessary to the comfort and well-being of the patient. It is often the case that diarrhœa is present and requires something to control it, which usually is not hard to do.

When there is diarrhœa the stools are generally thin and quite offensive in odor, their odor and color indicating an absence of bile.

Intestinal hemorrhage sometimes occurs, and in the cases coming under my observation was rapidly fatal.

There is frequently tenderness over the abdomen and in one case under my care—a little girl 13 years of age—the pain in the iliac region was so marked for several days that I began to suspect appendiciitis.

Tympanites is rarely present to a marked extent, but when it is so, becomes a most formidable symptom. Sordies does not occur except in grave cases attended with hebetude or a low form of delirium. I have never seen the rose colored spots which are of such diagnostic importance in typical typhoid fever, but possibly I have not made close enough search for them in every case.

Neuralgic pains in the chest or back is present in nearly every case at the beginning. As a rule they disappear after three or four days and do not return. Head-ache is frequently present, but usually not marked except when the temperature is high. Delirium is usually absent, but in severe cases where it comes on late in the progress of the disease indicates a gloomy outlook for the patient.

Epistaxis was present at the beginning in the majority of cases which I saw.

Vomiting frequently occurs during the first few days after which it usually subsides. Exceptionally, however, it persists throughout the entire attack, materially interfering with the administration of remedial agents. I just now call to memory a case which continued for twelve weeks which could retain absolutely nothing but fever powders and buttermilk. The patient finally died from hypostatic congestion of the lungs, and heart failure. Bathing even could not be satisfactorily carried on in this instance.

The urine is frequently scant and highly colored, but usually the kidneys are not very troublesome. Venous thrombosis occasionally occurs and when present adds to the gravity as well as duration of the disease. A case is referred to under the head of treatment in which the fever continued 105 days. Venous thrombosis and probably phlebitis occuring first in the left, and afterwards in the right leg.

The history of swampy, timbered countries, when new especially, is that of acute malaria manifesting itself in chills and transient fevers, that as they grow older and the population increases, this gradually gives way and typhoid fever makes its appearance. A quarter of a century ago, chills and the fever which follows them were common, now they are very uncommon. Simple remittent or billious fever lasting from 3 to 10 or 12 days was also quite common, now it is uncommon.

The causes which produce malaria have not all disappeared from the country, but a change has come over the character of sickness, and the question arises, what have we now, and what the cause which produces the change?

In the beginning of my practice calls were frequent for prescriptions for chronic chills; now I don't have six a year. Why this difference?

(1st.) We now have in typhoid fever one which is self limited.

(2.) We now have a form of fever which no known medication will check, but which runs its course in spite of all the ingenuity of man. Typhoid acts similar.

(3rd.) Frequently when it enters a household, one, two, or a half dozen others follow. This is true of typhoid fever.

(4th.) Diarrhœa and intestinal hemorrhage are symptoms which make their appearance in this disease. These symptoms belong to typhoid fever.

(5th.) Venous thrombosis occasionally occurs as a complication with this fever.

(6th.) Epistaxis is present in the majority of cases at the beginning. It is a

symptom of diagnostic importance in typhoid fever.

With the foregoing train of symptoms which I have given as faithfully as I know them, after an experience of fourteen years practice in West Tennessee, and recognizing that some valued sign of typhoid in its typical form are wanting, I desire to ask of this intelligent body of medical gentlemen, shall we denominate this fever typho-malarial or a typical typhoid fever?

Treatment:—I generally begin treatment with an effective dose of calomel with soda. Quite often it is necessary to repeat this two or three times in the course of the disease. Proper treatment and good nursing will succeed in curing a majority of cases.

The nurse should be instructed in the use of the thermometer, and given to understand how to keep a regular record of the case, so that when the physician makes his visits he can get a more reliable history as to the progress of the case.

Patients should not be allowed to lie on feather-beds, mattresses are far better. In one instance an air bed was used, but having been covered with some kind of an oily preparation, though it was dry, the osmosis from the skin towards the bed was so great that in a short while the gown would be perfectly wet and water standing in the depression beneath the body. On this account it had to be abandoned though it was exceedingly comfortable and the patient was very fond of it. It is difficult to use a bed-pan on a bed of any kind. Patient should maintain the horizontal position during the entire attack and when one is stubborn and will not do so, he always suffers in consequence, unless it be a very mild case. Good milk, according to my observation, is the most suitable diet. Sweet milk is more nourishing but most patients prefer buttermilk, and will take it with avidity from the beginning to the ending of a four or five weeks spell. Occasionally persons are met with who can not be induced to take milk under any circumstances, when soft eggs or milk toast, etc. may be cautiously given. In giving buttermilk it should always be perfectly fresh. It is sometime ssurprising how well buttermilk will nourish a patient with this fever. The stomach and bowels are usually free from gas and the restlessness and nervousness are less with a pure fresh milk diet than any I know of.

It is highly important to keep the stomach quiet throughout an attack, because if rebellious it materially interferes with the administration of proper remedies, and a simple case is resolved into one of gravity. In order to do this studiously avoid the use of opium and do not use it if possible to get around it. Opium checks the secretion from the liver, constipates the bowels, and causes them to fill with gas. In cases attended with laxness of the bowels or diarrhœa, opium sometimes renders good service. I use phenacetine to a very limited extent, and rarely give it at all unless the temperature is above 102½°, and then in doses just sufficient to produce a slight moisture of the skin, intending that it shall only act as adjuvant to a more desirable method of reducing fever. Free bathing is absolutely indispensable to a successful issue in the treatment of this fever, except in very mild cases. In private practice however, it is entirely impracticable to follow the Brandt method of immersing the body in cold water, as it requires a number of assistants which are seldom to be had, besides very few patients are provided with bath tubs and still fewer able to buy them.

My custom is to have the water applied to the body as the patients lies in bed; it is best applied by means of soft cloths, bathing constantly for twenty or thirty minutes. Cold or warm water may be used according to the wishes of the patient. Cold water will reduce fever quicker, and when agreeable I prefer it; but with a tendency to cold hands and feet and other evidences of internal engorgement warm water is, I think, safer. When water is applied to the patient one nurse can for weeks frequently give all attention necessary. I have a patient who is now recovering from an attack in which the fever lasted 105 days, and during the whole of this time he was nursed and bathed almost exclusively by his wife. A towel wrung out of cold water and applied to the bowels, covered by a dry one invariably gives quite a degree of comfort, besides it helps to lower temperature and has a good influence in keeping down tympanites.

Of all internal remedies for the reduction of temperature in the protracted fevers of West Tennessee none are to be

compared for efficiency and safety with quinine. The sulphate or bi-sulphate may be used, but unless contraindicated by an irritable stomach or nervous system the sulphate is preferable.

Some practitioners treat this fever with but little if any quinine after the first 3 or 4 days, and mild cases with a low grade of fever require very little, but my observation during fourteen years experience in the treatment of this fever with and without quinine, has convinced me that cases with a high grade of fever treated by antipyretic doses of quinine and free bathing do better than treated by bathing without the quinine. In cases where quinine is required for its antipyretic influence less than 40 or 60 grains in the 24 hours does very little good, and quite often this amount will have to be increased to meet the requirements. Care should be used to avoid depression and sometimes stimulants and nerve sedatives are necessary in order to its successful administration. Usually, however, after it has been given 2 or 3 days the system becomes tolerant of its presence and no more trouble is experienced from it.

The object in its administration should be mainly that of an antipyretic, and inasmuch as a temperature of 101° or 102° does not exhaust rapidly, only enough should be given aided by the bath to keep the fever at about this point. As a rule this can be done without "fever powders." Occasionally the stomach rebels at quinine, and an amount sufficient to reduce the fever can not be tolerated, the nervous system becomes disturbed and through this violent persisting vomiting is induced. I instances of this kind if possible the quinine should be lessened or suspended for awhile, but if not considered safe to do so, then chloral hydrate and potassium bromide suspended in mucilage of Acacia should be given per rectum; but if both the stomach and the rectum are irritable, hypodermic injections of morphine and atropia sometimes act nicely; very often, however, the after effects of the morphine is worse than the quinine.

I have never been very successful in giving quinine by suppository, and never but in one case was I cruel enough to give it continuously by hypodermic injection. Possibly it might be said do not give it at all under such circumstances. It is needless to give such advice as it cannot be given to any advantage, but such cases frequently terminate unpleasantly because one of the best friends of both the patient and doctor has failed, and the chances are that ordinary bathing will not control the fever which is rapidly consuming the body.

If some doctor would invent a contrivance by which private families could immerse their sick fever members in water as often as needed with a limited amount of assistance, he would confer an inestimable blessing on the human race. The wet sheet is about as inconvenient as immersion in water.

Very often a case will be pursuing a satisfactory course when severe rigors, followed by immense elevations of temperature, will occur. It is in just such cases that quinine, if given with a liberal hand, will do a most noble work. Having seen this state of things yield so nicely to quinine and free bathing, and having seen bathing alone so utterly fail, is it any wonder I should consider quinine my friend under such circumstances? Quinine should be given with three objects in view: 1, Reduction of temperature; 2, equalization of circulation; 3, neutralization of any malaria which may arise from time to time on children. It is best to keep a close watch for amblyopia, inasmuch as some are very susceptible to the action of quinine. Amblyopia is not as transient as some authors would seem to think. I know two cases, one of nearly six and one of nearly two years duration, in which the field of vision is very much contracted. Guaiacol has been vaunted as an efficient agent in reducing the temperature in typhoid fever.

An article in *Medical News* of January 19, 1895, from H. G. McCormick, M. D., of Williamsport, Pa., concludes as follows: "I have thoroughly tried the bath and cold packs and I know they have proved very efficacious in many cases, but with my experience with Guaiacol I have no desire to return to either of them." I can not speak from experience. The bowels need attention and if constipated should by mild measures be induced to move every 24 or 36 hours. If diarrhœa is present and the stools offensive opium, bismuth subnit, and salol should be given to check the frequent actions and destroy the odor. Intestinal antiseptics are always indicated, whether there be diarrhœa

or constipation; and I know of no better mixture than carbolic acid. Co. tr. iodine and Fowler's solution, in which is combined both antiseptic and anti-malarial agents. Turpentine suspended in cinnamon water and powd. acacia is a very effective mixture and but little, if at all inferior to the carbolic solution. I have used sulpho-carbolate in two cases only, they did well. I think favorably of the chlorinatep quinine solution of Yeo but have not used it. It is composed of potassium chlorate made strong by hydrochloric acid and water, to which quinine is added and syrup of orange peel to flavor. If this is not too bitter, I think it is worth trying. Dryness of the mouth needs attention; a solution of chloride of sodium is a good wash, and glycerine will help remove the dryness. Exhausting sweats frequently occur late in the disease, for this tr. digitalis with atrophia or tr. belladonna answers a good purpose. Strychnia, alcohol and ammonia have their places in the treatment, and under certain conditions can not be dispensed with; but I will not take up time to dwell on them. Hypnotics are frequently required to produce sleep, and for this I am partial to Wampolea hypro-bromic compound. Venous thrombosis, with its results, requires soothing applications with anodynes to relieve the pain of the accompanying phlebitis, careful handling, and later, electricity and bandaging. I have a case of this kind under treatment at present. After the cessation of fever, prudence in diet, tonics and the avoidance of severe muscular exertion are conducive to a speedy convalescence.

EXAMINATION FOR LIFE INSURANCE.*

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The importance of this subject and the responsibilities connected with it, together with the fact that it has not been a usual one discussed at our meetings, would be a sufficient apology, if any was needed, for the presentation of this paper.

An idea may obtain entrance in the minds of some physicians that no special qualifications are necessary, and but little preparation is required for this work, when indeed the fact exists that in view of the financial interests involved in life insurance, and that the success or failure of the vast enterprise rests almost entirely with the medical examiners, it becomes a matter of great interest, and calls for much thought and careful study upon the part of medical men.

It is notable that the profession is not slow to recognize this, as several medical colleges have instituted special lectures on the subject; books have been written by able authors; instructions are sent out by medical directors of companies to local examiners, and no physician who accepts the office of medical examiner should long remain ignorant of his duties in the premises.

Most companies of any note pay a reasonable fee for examinations, and no member of a great profession, proverbial for its sense of honor, should take up a fee for which he had rendered no just equivalent. And indeed aside from the question of compensation, if we voluntarily accept an appointment or position, we should conscientiously discharge its requirements, or resign.

The object of a medical examination is to ascertain the true physical condition, personal and family history, hereditary or acquired predispositions, occupation and sanitary environments, and the mental and in some larger degree the moral status of the applicant.

In order that information on these lines may be had at the home office, blanks are furnished examiners on which to make the required reports; but while these blanks should be carefully filled in they should be considered as aids or conveniences, and in no sense should they take the place of careful study and inquiry on the part of the examiner.

To sit down and hurriedly run over the questions laid down on the blanks, and

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write applicant's answers, would in many instances amount to no examination at all. For this reason, the questions are easily understood by medical men, but many of them are without meaning to the average applicant unless they be explained.

Take one or two examples: "Have you ever had peritonitis, or any disease of the abdominal organs?" or, "Have you had stricture of the urethra, enlarged prostate, or disease of the genito-urinary organs?" In a blank before me, I find the following in a column of questions: "Apoplexy, diabetes, delirium tremens, epilepsy, fistula, insomnia, otitis, syphilis, varicose veins, &c."

A few men, who perhaps had given some attention to the study of medical terms, might answer such questions intelligently, but we must keep in mind a remarkable truth that however well posted a man may be in regard to the ordinary affairs of business or social life, he may not, and usually does not know anything about diseases, much less the names given them by the profession.

A physician is perhaps often excusable for using technicalities, for it frequently occurs that he does not desire the patient or friends to comprehend his meaning, or he might be in doubt as to his diagnosis and find it quite convenient to intrench himself by medical phraseology while he awaited further developments. But in examination for insurance, it must be the purpose to make ourselves understood; hence it would be better to ask the questions at once in such terms as we know the applicant can fully comprehend, or else explain their full significance before writing the answers. If we do not he is liable to give an unsatisfactory answer, from one of two reasons, either he does not wish to appear ignorant, or he will regard the questions as important relative to his acceptance, and will answer in the way most favorable to himself.

We must remember that in common practice the patient is anxious to explain everything connected with the disease or accident, and thus aid the physician in ascertaining the true condition; but the reverse is often true in the case before us. A person having once decided to apply for insurance, becomes anxious about it, and in no event does he wish to be rejected; hence the temptation to cover up his health record, or his family history if it be unfavorable, and it need not be expected that he will volunteer information that would be detrimental to his purpose.

Ingenuity and tact, together with a keen insight into human character, are in many instances needed by the examiner to enable him to elicit the facts and arrive at just conclusions.

We should never be content with such answers as "don't know," "female disease," "lingering illness," or, "old age." Such expressions are very confusing to the medical directors of a company.

For instance, "of what did your mother die?" "I do not know," or, "She died of female disease." Such answers would leave the company in great doubt on a vital point, that of family history.

So, if the desired information cannot be obtained from the applicant, search must be made elsewhere; the physician who attended her, or the nurse; if these cannot be found, some friend or acquaintance should be interviewed. I remember on one occasion to have gone nine miles for information relative to the family history of a man, who personally had the appearance of a good risk, but whose mother died in his infancy and he was unable to give satisfactory information relative to his maternal relations, some of whom it was reported had died of consumption. It cost me some time and trouble, but I secured for the company what has proved to be a first-class risk. All sources of information should be exhausted before we write unsatisfactory answers to vital questions.

Many persons know but little about their parents; very few indeed know anything about their grand parents, and such knowledge is sometimes difficult to secure, but we may frequently get the main facts from some old citizen who has known the family and their history through one or more generations.

I would like to state before leaving this part of the subject that an answer which would involve the rejection of the applicant should not be made without due consideration.

To illustrate, "Have you ever had vertigo?" This being explained to mean dizziness, or swimming in the head, he will probably answer, "Yes."

If this answer is so recorded and goes in unqualified, the company will naturally conclude that the "vertigo" is an indication of serious brain or aural trouble,

or apoplexy, and the applicant will be rejected, while perhaps the vertigo was caused by malaria, bilious disorder, loss of sleep, or some trifling ailment.

Very few persons have not at some time had palpitation, but we know that slight disorders of digestion or strong mental emotions may produce it, and if there be no disease of the heart, no irregularity of the pulse, no difficulty of breathing, only a little palpitation at some time, it should not be sufficient to reject the applicant.

In such cases as the above, we would be warranted in giving a negative answer.

"But," you say, "we should tell the truth." That is just it. But what is truth in such instances. It is that the vertigo or palpitation being wholly accounted for by the existence of slight ailments of other organs are mere functional disturbances, and a close examination showing a healthy brain and heart the symptoms referred to should be disregarded, for if answered affirmatively they would mislead the company, and the applicant would be rejected, not upon facts but upon a false conception of the applicant.

Examinations should always be made in private for obvious reasons, and when at all convenient, in the physician's office. When, however, the interest of the company demands it, we must not refuse to go to the house or place of business, for it is important that the examination be made with as little delay as possible after the application is made, otherwise, the party might change his mind, and thus the company be deprived of the business, and the family of the applicant remain unprotected by his failure to insure.

Examinations should never be made in a hurry. The company pays the physician for his work and he cannot do justice to either party in the transaction unless he takes time and acts deliberately.

If the applicant manifests restlessness and want of time, he should be informed that this is a business matter of importance and cannot be lightly treated.

No matter how hale and robust the applicant may appear, a careful physical examination should be made in every case. Previous to this, the applicant should be relieved as far as possible from embarrassment or morbid timidity. This may be done by some general conversation about the weather, business, or society. Then let him divest himself of his outer clothing, and shirt if it be stiff front, and place himself in an easy position. Proceed with the examination, having your own mind concentrated upon the object in view; but direct the patient's attention away from himself towards other objects. In short, it is desirable to arrive at the normal condition, free from all causes calculated to disturb or pervert the functions of respiration and circulation.

The abdominal organs, as well as the heart and lungs, should be submitted to physical examination, as should also the muscular and cutaneous systems.

Great caution must be exercised at this point—business habits, exercise, recreation, sleep, regularity in eating, the use of tobacco and other narcotics should be inquired into; but that which concerns us most is the drink habit. While it would be better if no man drank alcoholics as a beverage, yet moderate drinking of itself does not debar an applicant; so then if he drinks at all, we must find what he drinks and how much, when and where he drinks it, and with whom he drinks.

A farmer or laborer in the rural districts, industrious and frugal, regular in his habits of exercise, eating and sleeping, though he takes his "dram" with as religious punctuality as he attends church, and on certain great occasions becomes convivial and drinks to excess, might be a fair risk. But the man who loiters around saloons in idleness, though he may drink but little, yet is seen daily with the drinking and lawless element, engaging with them in their lives of debauchery and crime, should be promptly rejected because the baneful influence by which he is surrounded is sure to lead to profligacy and drunkenness. So that the line drawn by Dr. Anstie at one and one-half ounces of alcohol, or its equivalent, per diem, might be safe in rare instances—such as the farmer referred to, but certainly would be extremely dangerous if indulged in the ordinary drinking circles of towns and cities and under saloon influences. Therefore no definite quantity can be fixed without considering other factors involved in the habit.

No company ought to issue a policy of any sum whatever, unless the urine of the applicant has been thoroughly tested and found in a healthy condition.

I have repeatedly examined applicants, who in every other respect appeared to be

first-class risks and would be surprised to find the urine highly albuminous. This, if persistant, would necessitate the rejection of the applicant. The same might be said of other abnormal deposits.

It is not necessary in this paper to suggest methods for analyzing the urine, as it is presumed that every practitioner, whether he be medical examiner or not, has in his office the necessary apparatus, and certainly no one would attempt to perform the duties of medical examiner without first familiarizing himself with the essential part of the work.

We should also be assured that no deception is practiced, but that the specimen was passed by the applicant under examination.

There are other matters of importance connected with this subject that must be considered by the medical examiner, but can not be treated of in this paper within the time prescribed.

And while we exercise great prudence and care in every detail before recommending a risk for insurance, it must be remembered that a perfect human being, with a perfect health record, a family history absolutely free from disease or hereditary predisposition, one also who follows an occupation free from danger, and whose habits are above reproach, has never been found on earth since,

"Man's first disobedience and the fruit
Of that forbidden tree whose mortal taste
Brought death into the world, and all our woe,"

and our first parents receiving from Jehovah their marching orders, with much fear and trepidation took their final departure from the beautiful garden of Paradise.

So that due allowance must be made on account of the common frailties and infirmities incident to all the race. Otherwise insurance companies could have no existence, and the large benefits accruing by this wise provision would be lost to mankind.

Insurance companies desire business, and what they expect and require is such material as may reasonably be supposed will live out the ordinary expectancy,

Medical examiners having gained as nearly as possible all the facts, and having carefully reviewed and weighed them must make up their estimate of the case as a whole, and upon this basis, and with the golden rule before them recommend the acceptance or rejection of the risk.

In view of the essential qualifications of a medical examiner, his responsibilities, the necessity of thorough investigation, the demands made on his time by insurance companies, the delicate attitude he sustains both toward the company and the applicant, his fee in no case should be less than five dollars—in some instances more—and should always be paid by the company and from the home office.

THE USE AND ABUSE OF COCAINE IN NASAL DISEASES.*

S. W. SANFORD, M. D., UNION CITY, TENN.

Too often papers prepared for and read at these annual reunions are of such length, and deal so much in theorizing to the exclusion of practical, actual bed-side experience, that we are not benefitted by these meetings as we should be.

I will not take up much of the Society's time with this short article, yet if I succeed in impressing upon the members the alarming extent to which cocaine is used by the laity who are afflicted with some nasal trouble, I will have accomplished my purpose.

It is useless to consume your time in discussing the merits of this drug as a local anæsthetic, as that property is well known to you all, and as such it is indispensable to the oculist, dentist, and those of us who do much nose, throat and ear work. All operations in the nose, such as removing polypi, hypertrophies, exostoses, etc., are rendered painless by the use of a four, six, eight or ten per cent solution, thoroughly applied by a spray, or by saturating a pledget of absorbent cotton of suitable size and carefully applying it to the part to be operated on; or first spray and then apply the cotton satu-

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rated with the solution—the latter mode of application being my preference.

I have found that in order to secure complete anæsthesia of the parts it is necessary to keep the solution in contact with it from ten to twenty minutes. My experience is that a ten per cent solution is sufficient, and many patients are so susceptible to the effects of this drug that a four or six per cent solution will be strong enough. I have found some patients who could not bear stronger than a two per cent solution. Although a twenty per cent solution is advised by such authority as Bosworth of New York, I would not use or advise a solution of such strength for two reasons; first, I have never found it necessary; and secondly, I regard the use of solutions of such strength dangerous; for it is a fact well known, that cocaine is very uncertain in its action, even upon the same patient.

The point, as I have stated, that I am most anxious to especially call attention to, is the alarming extent to which cocaine is being used by those who are sufferers from ordinary catarrhal troubles, particularly hypertrophic rhinitis. The fact that this drug so quickly astringes the mucous membrane, thereby giving immediate relief has been recognized and taken advantage of by unscrupulous manufacturers of patent medicines, and the daily papers are full of advertisements of Dr. So-and-So's never failing cure for catarrh, and every drug-store has it for sale. Now it is a fact that nine-tenths of these patent catarrh snuffs contain large quantities of cocaine, combined with menthol, bismuth, carbonate of magnesia and bi-carbonate of soda.

The sufferer from catarrh reads the flaming advertisement of Dr. Blank's wonderful and never failing catarrh snuff, and then goes to the nearest drug store, buys a box containing a powder similar to the above formula, pays an exorbitant price for it, with directions to "snuff a small quantity up each nostril several times a day or as often as needed to keep the nose and head clear." Now thus prepared to treat and cure his catarrh he goes on his way rejoicing and snuffing, and the relief he gets from the annoying and distressing symptoms is something wonderful to him, and he hastens to tell all of his friends who are thus afflicted, and those he fails to see, he sends word or writes to them, and still continues to rejoice and snuff and bless Dr. Blank for his wonderful discovery, and should he possess the title of Rev. So-and-So, D. D., the news of his miraculous cure and rescue from death will be heralded broad-cast over the country by means of an "unsolicited testimonial." By reason of his prominence as Rev. —— D. D., the more harm will be done; but lo! in a short time he finds that the more he snuffs the more he wants to snuff, and the more nervous he gets, and just here he finds that "Nature's sweet restorer" has taken wings. Then he goes to his physician, who may at the first consultation discover the cause of the trouble, but oftener he does not.

Now the patient has fallen a victim to one of the most, if not the most, seductive and dangerous of drugs, which has been called the greatest recent triumph of the Devil. If he were the only victim in that community it would not be so alarming but through his personal influence and the "unsolicited" testimonial the amount of harm done is simply appalling to contemplate.

This is what is being done daily in almost every community and by the most insidious means, and is wreaking sad havoc. In a majority of cases the patients are made victims innocently and unwittingly, and it is time for us as guardians of the public health to speak out with no uncertain sound, and invoke the aid of our legislators in exposing and crushing out this monster evil of the age the unrestricted manufacture and sale of patent medicines.

To more forcibly impress upon you the extent of this evil, I refer you to a paper read by Dr. George Wilkinson, of Omaha, Neb.—at the meeting of the American Medical Association, 1893. In this article Dr. Wilkinson gives a sketch from a study by personal contact with a colony of cocaine habitues in Omaha, caused from using one preparation advertised as a snuff and cure for catarrh, with the result of an assay of —as he calls it—"products of his Satanic Majesty." He states that the amount of cocaine used daily was often so much as forty to sixty grains.

This, gentlemen, seems to me to be a matter demanding most thoughtful and serious consideration.

TRANSLATIONS.

THE CHOREA OF PREGNANCY.

The chorea of pregnancy, according to Dufournier (*Le Bull. Mèd.* November 21, 1894) does not differ symptomatically from infantile chorea. The chorea of pregnancy occupies in the pathology of pregnancy a special place, in that it is not an accidental accompaniment of the pregnancy, but is provoked by the pregnancy itself. From an etiologic point of view, all of the causes which are noted as predisposing to infantile chorea, in large part are present in the chorea of pregnancy. The nervous system in these patients offers a special impressionability which may be hereditary or acquired after diverse affections. Chorea is transmissible by heredity. Lannois, Déjerine, Huet and Charcot are all in accord upon the importance of the role of heredity in the development of chorea. Another element of etiologic importance is the history of infantile chorea. When a young woman has been afflicted in childhood with a mild or severe chorea it is not rare for this to return in the first pregnancy. It appears most frequently in the first pregnancy, so that primiparity may be stated as a cause of the disease. But the rôle of primiparity must not be exaggerated, because primiparæ constitute the greatest number of pregnant women. Also chorea is most common among young women and these are most frequently primiparæ.

When a woman in her first pregnancy has presented the symptoms of chorea, it is frequent for her in successive pregnancies to show anew the disease, and in each recurrence in a more grave form. The opposite may also be seen, and a young woman who in her first pregnancy had been afflicted with chorea may not show any signs of it in subsequent pregnancies. It is a more complex matter to determine the part which rheumatism, chloro-anemia, hysteria, previous acute diseases, and in a general manner the various infections and auto-intoxications may have in the development of chorea. For a long time Sydenham's chorea was regarded as a rheumatic manifestation. It seems difficult to admit this interpretation in the case of the chorea of pregnancy, because in most of the cases the authors relate an absence of rheumatism in the antecedents of their patients. The analogy which exists between the modifications of puberty and the modifications of pregnancy from the point of view of the nervous system, may permit the adoption for the chorea of pregnancy the conception of Joffroy in regard to Sydenham's chorea, which he considers as a disease of evolution affecting the cerebro-spinal axis. W. A. N. D.

Influence of Odors upon the Voice.

It is well known to singers that perfumes influence the voice. The violet is regarded by artists as the flower which especially causes hoarseness. The rose on the contrary, is regarded as inoffensive. The subject is studied by M. Joal in a brochure recently published. He does not believe that the emanations of the violet prevent free vibration of the vocal cords, and thinks that if this flower has any injurious effect upon the voice the rose and other flowers must have the same action. There is, in fact, nothing fixed or regular in the influence exerted by the perfume of flowers. It is a matter of individual susceptibility. Some are affected by the lilac; others by the mimosa. Others, again, are in no manner affected by flowers, musk, amber, civet, or the various toilet preparations, but experience obstruction of the nose, hoarseness and oppression from the odors of oils, grasses, burnt horn, and the emanations from tanneries and breweries.

"It is very difficult," adds M. Joal, "to furnish an explanation of these peculiarities, and we must content ourselves by regarding them as examples of olfactive idiosyncrasy. It cannot be denied that odors may occasion various accidents and vocal troubles, especially in persons of nervous temperament and excessive sensibility. Six out of seven of his patients were decidedly neuropathic.— *La Médicine Modern.*

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SATURDAY, JUNE 29, 1895.

EDITORIAL.

DYING DECLARATIONS.

The following act is pending in the State Senate, having passed the House of Representatives of Pennsylvania:

AN ACT

Making dying declarations competent in prosecutions for criminal abortions and attempted abortions where the subject shall die in consequence of such unlawful acts.

Section 1. "*Be it enacted by the Senate and House of Representatives of the Commonwealth of Penwsylvania in General Assembly met, and it is hereby enacted by the authority of the same*:

"Section 1. That the ante-mortem statements of any woman who shall hereafter die in consequence of any criminal acts producing or intended to produce a miscarriage of such woman, as to the causes of her injuries shall be competent evidence on the trial of any person charged with the commission of such injuries with like effect and under like limitations as applying to dying declarations in prosecutions for felonious homicide.

"Provided, however, That before such statement shall be submitted to the jury as evidence, the Commonwealth shall by competent and satisfactory evidence prove that such woman was of sound mind at the time such ante-mortem statements were made. And provided, further, That no conviction shall be had upon the uncorroborated declaration of such woman.

"Section 2. All acts or parts of acts inconsistent herewith be and the same are hereby repealed."

If this was an act that created a few political offices thus increasing the leverage of the political power of our statesmen, it would receive their immediate attention. All good people, all with a high sense of what the justice and morals of a community should be, and would have the same copied into our law, will see the wisdom and justice of this act.

Yet all the virtue of this act should not

be destroyed by the one closing proviso—"That no conviction shall be had upon the uncorroborated declaration of such woman."

It should be remembered that it is only in very rare or exceptional cases that any but the wronged woman can testify as to the crime committed against her. The crimes to which she is most exposed are those of the darkness. She should be permitted to speak and speak freely under the rules of law which have centuries of endorsement.

ABSTRACTS.

TECHNIQUE OF MAKING URETHRAL INJECTIONS.

Guiard (*Annales des Maladies des Organes Genito-Urinaires*,), gives the results of his investigations concerning the urethra and its medication. The capacity of the uretera had been stated by Jarin and Leprevoct to be from five to eight grams, therefore it was held that a urethral syringe should not hold more than five or six grams, equal to about one and one-half drachms. Later it was shown that posterior urethritis, particularly late in the disease, was far more frequent than formerly supposed. The author by expermenting on the living subject found that the urethra would always hold eight to ten grams (two to two and one half fluid drachms), and more often twelve to fifteen grams, and sometimes sixteen to seventeen. As the patient could tell when the sphincter was forced, this was avoided. These deep injections are only called for when definite symptoms have already demonstrated that the posterior region of the urethra is already affected.

In order to administer these deep injections, the author uses a syringe of twenty grams (five drachms) capacity. When it is desired to overcome the sphincter, gentle pressure is made when the liquid will enter. In an experience of ten years he has never had any accidents, and only encountered one case in which the sphincter would not relax. It is better to give the injections when the patient is lying down than when he is standing up. The requirments of an effective injection is that it shall reach the diseased parts. To do this a syringe of twenty grams (five fluid drachms) capacity should be used, and the injection of its entire contents, if carefully done, is easy and causes no inconvenience. —*Univer. Med. Mag.*

THE CAUSE AND PREVENTION OF NEURALGIA IN AMPUTATION STUMPS.

Witzel (Centralbl. f. Chir.), holds that neuralgia after amputation is not caused, as is generally supposed, by the formation of neuromata at the ends of the divided nerves. He states that if such were the case it would be necessary to lay aside the amputating knife. The neuralgic pains, he believes, are due to adhesion of the neuromatous swelling to the end of a bone. In order that its functions may be properly performed a nerve should move freely in its sheath. The structural elements which serve the special functions of a nerve are during life extremely delicate and almost fluid. The ordinary movements, therefore, of an adjacent joint would interfere with the structure and functions of the nerves of a limb if these nerves had no longer free range of movement in the direction of their long axes. In two cases of neuralgia after amputation in which Witzel had opportunities of dissecting the

stumps he found thick neuromatous swellings at the ends of the divided nerves. which were bound down by tough cicatricial tissue to the ends of the bones. It is evident that during movements of the stump at the nearest joint the fixed nerves must be stretched, those on the flexion side during extension and those on the extention side during flexion. In neuralgia caused by confinement of a nerve in a mass of callus the pain, it is held, is due to the prevention of the nerve's movement and not to its compression. As a preventive treatment Witzel recommends that in every amputation as much attention should be paid to the nerves as to the large arteries, and that the former should be pulled away from the flaps and divided high up. Attention should be particularly directed to this precaution in cases of amputation at the ankle and shoulder.—Brit. Med. Jour.

THE CLINICAL USES OF APOMORPHINE.

In an extended article, J. Boyer and L. Guinard (*Bull. Génér. de Thérapeutique*) write of the physiological action and clinical uses of apomorphine. The authors state that the drug produces two kinds of physiological phenomena, one being characterized by *excitation*, in which spasms, trismus, convulsions, agitation, vertigo, and hyperæsthesia are observed; the other, by *depression*, in which there occur syncope, collapse, hypothermia, general weakness, muscular paralysis, weakness and arrest of respiration, cardiac enfeeblement, and anæsthesia. These various phenomena are the result of the actions of two different kinds of drugs. The writers believe that the crystalline form of apomorphine causes exciting and convulsive phenomena, while the amorphous salts of the drug produce chiefly symptoms of stupor and paralysis. To obviate the production of diverse phenomena, and in order to obtain in the adult a simple and pure emetic effect, the white *crystalline hydrochlorate of apomorphine* should be employed in doses of 3 to 5 milligrammes ($\frac{1}{20}$ to $\frac{1}{12}$ grain). The authors believe that, judging from the results of the principal researches so far published, and which they review in a careful and thorough manner, apomorphine is a medicament of real value. Its efficacy and the superiority of its action over other emetics have been established. The easy method of its administration by subcutaneous injections and the rapidity of its action make it an excellent therapeutic agent. If employed in a pure form, apomorphine will not cause serious after-effects.—*Therapeutic Gazette.*

HOT SALINE BATHS IN INFANTILE PARALYSIS.

In the chronic stage of infantile paralysis, the mother should be instructed to bathe the affected parts daily with a hot solution of common salt. The solution should be of the strength of three or four ounces of salt to a quart of water and the application should be as hot as can be borne and should be followed by vigorous rubbing of the affected parts with oil. The mother should also be instructed to flex all the joints completely, taking care to antagonize any tendency to equinus, or equino-valgus, or-varus, which may occur. The writer recently operated upon a case in which the most extreme degree of equinus possible, had resulted from neglect of this precaution. Both feet were affected. In one foot the equinus was complicated with varus, and in the other with valgus. These cases are often neglected, to the great detriment of the patient. Applications of electricity, systematic massage, and skillfully directed gymnastics are of great value in these cases, and should be employed as soon as lesion is discovered, or at least as soon as the acute symptoms have disappeared. In some cases orthopædic apparatus is necessary to prevent serious deformity. Great results can often be accomplished in these cases; even the most unpromising symptoms may sometimes be made to yield surprising results by persevering treatment.—*Ed. Mod. Med.*

THE LIBRARY TABLE.

TWENTIETH CENTURY PRACTICE.—An International Encyclopedia of Modern Medical Science, by leading authorities of Europe and America. Edited by Thos. L. Stedman, M.D., New York City. In twenty volumes. Volume I, "Diseases of the Uroporetic System;" Volume II, "Nutritive Disorders." New York: Wm. Wood & Company. 1895.

Wm. Wood & Co., the well-known medical publishers of New York, have conceived and are carrying into execution one of the most daring ventures known in the history of medical publications. A colossal work of twenty large octavo volumes, presenting in some fifteen thousand pages all that is pertinent to the practice of modern medicine, as set forth by upwards of one hundred of the leaders in medical thought, men, who, without exception, are of international reputation.

During the past two decades numerous strides have been made toward placing the art of medicine upon a scientific basis, and it is the purpose of the present publication to place before the medical world, the results of the profound study which has done so much to revolutionize our notions as to the prevention and cure of disease. It is probably safe to say that never before was such an aggregation of medical masters secured as in the production of this enterprise.

The initial volume treats of "The Uroporetic System" and includes elaborate discussions of the diseases of the kidneys, ureters, bladder, prostrate, male and female urethra and urine.

The contributors are Francis Delafield, Howard A. Kelly and G. Frank Lydston of America, and Reginald Harrison and E. Harry Fenwick of London.

The work opens with a masterly monograph on "Diseases of the Kidneys," by Francis Delafield of New York, and the section by Reginald Harrison of London, upon "Diseases of the Ureters and Surgical Affections of the Kidneys," reflects great credit upon the writer.

Special attention is directed to the chapter by Howard A. Kelly of Baltimore, on "Diseases of the Female Bladder and Ureters," which is full of originality and marks a great advance in a heretofore much neglected branch of gynecology.——

The second volume of this work comes to us as a monument of much instructive, as well as interesting reading, and its builders are Dujardin-Beaumetz, Sir Dyce Duckworth, Archibald Garrod, Henry M. Lyman, Thos. J. Maclagan, Carl von Noorden and Max J. Oertel—an array of talented writers, quite sufficient to insure the worthiness of the book.

The work opens with an interesting essay on "Addison's Disease and Other Diseases of the Adrenal Bodies," by Sir Dyce Duckworth, of London. He admits that little new light has been thrown upon the nature of these diseases, or on the functions of the supra-renal capsules since Dr. Thos. Addison of Guy's Hospital first called attention to the subject in 1855.

"Diabetes Mellitics" is disposed of in a fluent manner by Prof. von Noorden of Frankfort, and he offers some suggestive proof as to the possibility of certain exceptional cases of this affection being contagious; an idea, however, which is strongly controverted by other eminent observers. It is interesting to note that although this article comes from the pen of a German physiologist, some sixty pages are devoted to the consideration of treatment.

Prof. Max J. Oertel completes the volume by a treatise on "Obesity." This monograph bears with it special weight, since the writer may be regarded as the inventor of, perhaps, the most successful method of treating this inconvenient ailment.

In conclusion it may be said that this second volume, as a whole, quite maintains the high standard accorded its predecessor.

W. H. P.

TRANSACTIONS OF THE ANTISEPTIC CLUB. Reported by Albert Abrams. Illustrated. New York: E. B. Treat. 1895. Price, $1.75.

Intervals come in every practitioner's life when a little light reading affords a relaxation to the mental strain incident to every busy life. The present volume contains its share of humor and manifests a considerable originality of wit on the part of its author.

SUGGESTIVE THERAPEUTICS IN PSYCHOPATHIA SEXUALIS; with Especial Reference to Contrary Sexual Instinct. By Dr. A. Von Schrenck-Notzing (Munich, Germany). Authorized translation from the German by Charles Gilbert Chaddock, M.D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine, St. Louis; member of the American Medico-Psychological Association; Attending Neurologist to the Rebekah Hospital, St. Louis, Mo., etc., etc. One volume, royal octavo, 325 pages. Extra cloth, $2.50 net; sheep, $3.50 net. Sold only by subscription to the medical profession exclusively. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

Aside from the interesting reading which this book affords, a new field of treatment is opened up, applicable to a class of cases which often prove most intractable to cure. The author recounts in detail some seventy cases of sexual perversions treated by hypnotic suggestion, some ineffectually, but the majority either cured or manifestly improved.

This work, while of benefit to the intelligent physician, would be a great source of harm were it to reach the hands of the laity—a calamity which the author seeks to avoid by preserving a strictly technical style.

A MANUAL OF THE MODERN THEORY AND TECHNIQUE OF SURGICAL ASEASIS. By Carl Beck, M. D., Visiting Surgeon to St. Marks' Hospital and the German Poliklinik of New York City, etc., with 65 illustrations in the text and twelve full page plates. Philadelphia: W. B. Saunder's, 925 Walnut St. 1895. Price, $1.25.

Owing to our increasing knowledge of the subject of bacteriology, and the consequent advancement in surgical technique, it is quite impossible for the larger text books on surgery to keep abreast of the times. In the manual before us we have a thoroughly up to date presentation of the subject of surgical asepsis and the practical methods of securing it. In addition to the interesting chapter on the influence of microbes, the author details the method of sterilizing instruments and dressings; of treating aseptic and infected wounds; of preparing an operating room in a private house as well as in a hospital (etc).

A chapter on Anæsthesia is a feature. This is a valuable addition to the book and should receive the careful notice of every physician. In embarrassed reputation the author describes the method usually adopted, namely to force the jaws apart with an instrument and draw out the tongue with forceps, and push the angle of the jaw forward. The critic believes this to be a needless waste of time and energy. If the head be lowered and the point of the chin be firmly drawn back so as to put the muscles, joining the chin, the hyoid bone and the sternum on the stretch, the tongue which is attached to the hyoid bone must necessarily be raised up and the glottis opened—and if the nose is not obstructed air will rush in.

The book is well illustrated, the print excellent and altogether it does credit to the well known publisher. W. E. P.

SURGICAL PATHOLOGY AND THERAPEUTICS, by John Collins Warren, M.D., Professor of Surgery in Harvard University; Surgeon to the Massachusetts General Hospital. For sale by subscription only. Cloth, $6.00; one-half morroco, $7.00. W. B. Saunders, publisher.

This work covers the subject well, handling it in an entertaining style, and leaving the reader with a clearer idea of the pathological conditions in a given surgical case than he could get from a book in which operative technique was given on the same page with the description of the disorder. The book is intended particularly for those who have more or less practical acquaintance with surgery, and who are anxious to study it further in a more purely scientific way.

Beginning with a description of bacteria as the cause of various disorders, lencomaines and ptomaines are defined, and a general outline given of the methods for their study now followed in laboratories, but for minute details the reader is referred to books on bacteriology.

Inflammation of various kinds is now taken up and the supposed causes given; then surgical diseases, tuberculosis, actinomycosis, gangrene and others, and their clinical appearances described.

The differences in appearance, structure, and progress, between different varieties or benign and malignant growths, and the different treatments to be adopted follow, and finally a chapter on aseptic and antiseptic surgery.

Very many fine illustrations, the majority of which are collected, present a vivid description of the subjects written about.

S. M. W.

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M.D.

MEDICINE.

Chest Pains.

These may be due to:

1. Intercostal neuralgia; tenderness at points only.

For neuralgia strap the chest and give arsenic, with an occasional mercurial purge. Quinine acts best after mercury.

1. Rheumatism of the fascia, the whole region being tender.

Chest rheumatism is connected with beer-drinking. The salicylates are useless; alkalies of doubtful utility. The best remedy is water drunk in enormous quantities.

3. Neuritis; circumscribed linear tenderness.
4. Acute pleurisy; chill, fever, friction sound.
5. Dry pleurisy: very common, relieved so surely by adhesive straps that this relief confirms the diagnosis.
6. Neuroma.
7. Aneurism; may not cause pain, even if large.
7. Cancer.
9. Ataxia.
10. Spinal disease.
11. Bronchitic pain; calls for strapping and opium.
12. Myalgia; relieved by straps.
13. Mitral disease; rarely painful.
14. Aortic disease; generally painful.

Premature Births.

M. Villemin (*Universal Medical Journal*) reported before the Societe Obstetricale et Gynecologique the case of a two-year-old child, born in the sixth month of pregnancy. That the child had not had six months of intrauterine life he could vouch, the statement being borne out by the last menstrual period of the mother, the date of the first fetal movements, the child's weight, which was thirty and a half ounces, and its appearance.

Budin had had this infant under observation from the beginning and corroborated Villemin's statements He had examined infants of six or seven months that had cried and lived a few days and had found the alveolar cavities filled with epithelial cells, the lung sinking when placed in a vessel of water.

Charpentier reported a case of premature birth in his practice, the child being not more than 6½ months and weighing thirty-three and one-third ounces. So sure was he that it would not live that he placed it in a basin while he was attending to the mother. After the mother was attended to, the child being still alive, he wrapped it in cotton, and was surprised next day to find it alive. It was then placed in a small well-heated room and fed with a spoon on human milk; on the twelfth day it could take the breast, and since it has thrived and grown.

Gastro-Intestinal Disorders and Female Affections.

Theilhaber cites forty-five cases (*Boston Med. and Surg. Journ.*) of women suffering from stomach disorders, twenty-five with nervous dyspepsia, twelve with stomach atony, two with stomach catarrh, two with chronic intestinal catarrh, and four with other affections. Gynæcological examination revealed absence of any abnormalicy in four cases; in nineteen catarrhal endometritis, with more or less thickening of the parenchyma of the uterus, three of oophoritis, two of parametritis, one of old puerperal parametritis, one of retroversion of the antefluxed uterus, and one of small ovarian tumor. As to the connection between the gynæcological troubles and the stomach and bowel affections, Theilhaber divides the cases into three groups. The first embraces those cases in which the gynæcological condition is only a chance occurrence. In the second group belong those cases in which the gynæcological disturbances are caused by the gastro-intestinal affection. Theilhaber mentions here especially cases in which metrorrhagia and dysmenorrhœa are caused by constipation. In the third group the uterine condition is the cause of the stomach trouble. Six of the patients with nervous dyspepsia suffered from retroflexion; in four of these the dyspepsia was cured by the reposition of the uterus, in two not. Nervous dyspepsia and hœmorrhagic endometritis existed in three cases. In two the digestive difficulties which had existed for years disappeared after curetting; one patient withdrew herself from treatment. Of eleven cases of nervous dyspepsia and catarrhal endometritis local uterine treatment had prompt effect in eight. Four cases of stomach atony which were associated with various local conditions were cured coincidently with the cure of the uterine conditions. Theilhaber concludes from his observation that in all cases of nervous dyspepsia, atony of the bowels, or of the stomach, hyperacidity, want of acidity for a long time where rational medicinal treatment has not been successful, thorough gynæcological examination should be made especially when the patients complain of menstrual irregularities or of leucorrhœa. Still though gynæcological treatment is important, it is necessary that stomach treatment should also be carried out.

Intramural Abscess Cavity Filled With Gas and Purulent Material.

(*American Journal of Obstetrics and Diseases of Women and Children.*) By A. F. Jonas, M.D.

Labor in which the right arm presented, necessitating version, was followed a month later by enormous enlargement of the abdomen, the circumference measuring forty-eight inches. On examination, a large mass was found, attempts to move which caused simultaneous movements of the cervix and the supposed fundus. A cystoma with infectious contents was diagnosed and an operation performed. A trocar was introduced into the tumor, and on withdrawal a large quantity of fetid gas rushed out, which reduced the tumor nearly one-half, and was followed by very thick purulent material which contained broken shreds and sloughing tissue. The fundus uteri, ovaries, and tubes were found forced low down in the pelvis and free posteriorly, but anteriorly the uterus was attached by its entire surface to the wall of the cystoma, which was located between the bladder and the uterus. There was no connection with the uterine cavity.

The origin of the abscess was in the anterior uterine wall, and it gradually separated the muscular layers as the quantity of pus increased. Suppurative processes in muscular structures usually produce liquefaction unless a capsule such as would surround a neoplasm is present. A small fibroid was found in the posterior wall, and, since fibromata are frequently multiple, it is not improbable that one existed encapsulated in the anterior wall. An existing intramural fibroid subjected to long continued pressure, such as would occur in pregnancy, becomes more or less bruised, and is in excellent condition for microbic infection, development of suppuration, and distention of the cavity with gas, the product of microbic action. So large a quantity as was found in this case is extremely rare.

Nuclein in Therapy.

Dr. F. W. Garber cites thirteen cases benefitted by the use of Vaughan's nuclein. Of these (*Therap. Gaz.*) ten were of tuberculosis, one of neurasthenia, one of follicular tonsilitis, and one of troublesome sinus with phlegmonous cellulitis induced by a sloughing tendon leading from the second finger high into the palm of the hand. Dr. Garber concludes nuclein is of value in incipient tuberculosis. Whether positively curative he is not yet in position to say, but by its early use it is possible to give patients longer lease of life and very much more comfort. If the patient be in position to take advantage of favorable climatic conditions, he has great faith in the complete restoration to health by the use of nuclein of a large number of persons now dying under other treatment.

Tying the Funis to the Maternal Thigh.

Dr. W. M. Guice of Louisiana reported a case of labor (*Med. Brief*) in which he found the funis tied to the maternal thigh to prevent it escaping into the uterine cavity. Dr. White of Riley, Kansas, reports the case of a II-para. He found the child born and the cord tied to the mother's thigh. He cut it and removed the placenta while a neighbor woman bathed the child. She had tied the cord to the mother's leg to prevent it from going back. This is an odd piece of obstetric folklore found among many races. In both instances the women were Americans.

In the Department for Diseases of the Chest, Dr. Mays prescribes sodium salicylate in pleurisy. The pleural cavity bears a marked structural analogy to the synovial sacs, and is as liable to rheumatic attack as they are; and these cases are greatly benefitted by the agent mentioned. Unless clearly due to other causes, pleuritic affections ought to be tested by an anti-rheumatic drug. Even in cases of serous effusion, or of empyema, either before or after the fluid has been drained off, sodium salicylate is of great value. It is given in five or ten-grain doses, four times a day.—*Polyclinic.*

A French doctor, according to the Cincinnati *Medical Journal*, has devised a vibrating helmet, constructed of strips of steel, and the motive power is a small electric motor. Its inventor uses it in case of nervous headache. The sensation, which is described as not unpleasant, produces drowsiness, the patient falls to sleep under its influence, and awakes to finds that the pain has ceased.

In the Treatment of Pleural Effusion

Segalas (*La Medecine Moderne*) has employed with success topical applications of guaiacol in the following formula:

Guaiacol	m xxxvi.
Glycerin } Tincture of iodin }	āā f3ss.

M.

The applications are made by means of a brush to the entire posterior aspect of the chest, which is then covered with cotton and an impermeable dressing and a bandage.

In a case of anasarca, with anuria, in the sequence of scarlatina, in which other measures had failed, applications of the following combinations were soon followed by relief:

Guaiacol	m xvi.
Glycerin	f3ss.

M.

—*Medical News.*

The Contagion of Mumps.

Le Courrier Medical gives some interesting information concerning mumps. The incubation period varies from eighteen to twenty-two days. It is especially contagious during this period, but is also contagious for some time after cure. The exact length of time has not yet been determined. The parotid and testicular fluids and also the blood appear to contain a certain pathogenic organism, but as yet this point is unsettled. Hitherto the results of inoculation with this special microbe have been negative. Frequently the disease begins with tumefaction of the submaxillary glands and a severe angina. Sometimes in metastatic orchitis the swelling begins with an epididymitis.—*Mod. Med.*

Aphasia Occurring During Convalescence from Typhoid Fever.

Dr. S. B. Ward reports a case (*Albany Medical Annals*). W. S., a boy 12 years of age, suffering with typhoid fever. I saw him on the morning of the 4th, and found that great improvement had occurred during the preceding twenty-four hours. He was exceedingly weak, having had a severe attack with a pneumonic complication, during the preceding four or five days; but the lung was clearing up; the temperature was below 101° F.; he was taking nourishment well, and there seemed to be a fair chance of his recovery. He was somewhat deaf, but gave clear evidence of hearing when spoken to in a raised voice. I noticed that he did not answer the question I asked him, but the nurse attributed this to great weakness, and as no importance attached to his answer, no further effort was made to question him. On November 9th his father wrote me that he was better; his strength improving daily, and his hearing much better.

This case is, in my experience, so unusual that it seems worth while to put it on record. Embolism during typhoid, or during the convalescence from typhoid, are by no means rare and the left anterior cerebral artery is probably as likely to be affected in this disease as in any other; but in the large majority of cases of aphasia due to embolism paralysis is present in some degree in some locality, while in this case it was entirely absent. Besides the trouble passed away so rapidly as to preclude the probability of its being due to embolism.

Guaiacol, Topically, as a Prophylactic against Diphtheria.

Dr. S. Solis-Cohn reports favorable results from applying guaiacol to the throats of healthy children who have been exposed to diphtheria. He uses Merck's preparation, and applies it either full strength or a fifty per cent. solution with glycerine or olive oil. It should be well rubbed into the tonsils and pharynx once daily. In case the throat is already affected, it should be applied twice a day.—*Philadelphia Polyclinic.*

The Treatment of Obesity.

Extensive trials have been made in France with thyroid extract in the treatment of obesity, and cases are recorded in which it would seem that very marked results followed the employment of this remedy, either by subcutaneous injection or by the mouth. The dose usually given amounted to about 15 1-2 minims of the thyroid juice daily, and in three months, in one instance, the patient's weight fell nearly 40 pounds. As soon as the treatment was discontinued the loss of flesh also ceased, and when the thyroid extract was resumed a daily loss of between three and four ounces again occurred. In other cases, however, the treatment was followed by no marked results, and the conclusion therefore, is obvious—either that the cause of the obesity must have been different, or that the thyroid extract may have been impure. On the other hand, it has been conclusively proved, in this country, that the use of the remedy may be followed by somewhat dangerous nerve symptoms, and that, in fact, the thyroid extract, powerful as it has proved to be in the treatment of various diseases hitherto considered to be difficult of cure, may be attended by results of an alarming character; and there is, therefore, reason to feel that firms which prepare this remedy would be well advised to dispense it only under medical direction.—*Med. Times and Register.*

SURGERY.

Cases Simulating Meningitis Without Corresponding Anatomical Lesions ("Pseudomoningitis").

Krannhals (*Deutsches Archiv fur klinische Medicin*) reports seven cases in which the symptoms were almost exclusively nervous, and in which the diagnosis of meningitis was made, although some of the more characteristic symptoms were wanting. One case ended in recovery; the termination of another could not be determined; five died. The findings at the post-mortem examination did not confirm the diagnosis, there being no exudate, no inflammatory turbidity, nothing but hyperemia and edema of the pia, and a varying number of hemorrhages in the same membrane. The microscopical examination of two cases confirmed the pre-eminent hemorrhagic character of the affection, and the absence of any real inflammatory changes, if one does not regard as such the edema of the pia, which in reality had the character of an edema due to congestion rather than inflammation. The brain itself showed no inflammatory changes; on the contrary, here and there, in the superficial layers of the cortex, there was a retrograde metamorphosis, a beginning necrosis due to a disturbance of the circulation brought about by the numerous hemorrhages in the pia. Bacteriological examination of the meningeal serum of three cases proved negative. Krannhals seeks to explain an intimate relationship between influenza and these cases of "pseudomeningitis," occurring as they did during the spring of 1890, following the influenza epidemic. He believes that the symptoms of the cases of "pseudomeningitis," due to some infectious process, and of acute meningitis in general, depend especially upon the action upon the central nervous system of certain toxines, and secondarily upon the anatomical lesions present.

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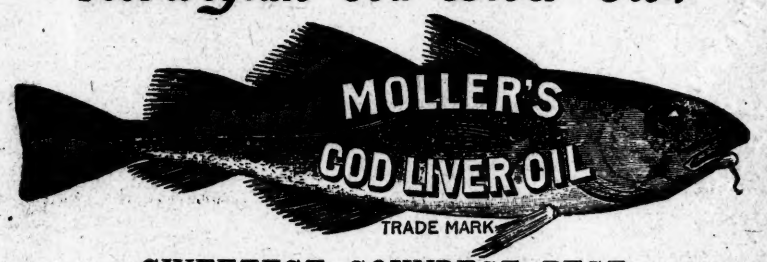

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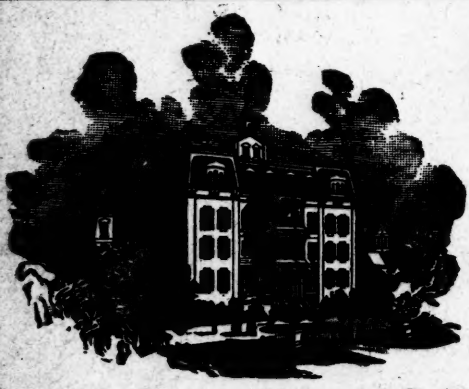

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